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THE AUTOMOBILE AUTHORITY OF AMERICA			
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## FOR AND ABOUT AUTOMOBILE CLUB MEN



New York, May

26.—As was expected many of the plans the Automobile Club of America had in mind for speed and other

contests, which were held in abeyance during the discussion pending the passage of the Doughty bill, are now coming to light. As this paper told at the time a great race was in contemplation over the Buffalo-Erie course during automobile week at the Pan-American. This project has taken definite shape in the establishment by the club of a great annual international contest to be known officially as "the Automobile Club of America Sweepstakes," open to the world. Its official establishment was made and the salient conditions of the race were fixed by the following resolution of the Board of Governors adopted on May 20:

"Resolved: That the Automobile Club of America organize, subject to the consent of the local authorities, an annual road race to be known as the Automobile Club of America Sweepstakes, the course to be chosen and the date fixed by the committee on races, to be properly policed and guarded, and to be not over 100 miles nor less than 50 miles in length; that it be open to cars carrying two persons; that the entry fee be \$100 for each vehicle, and \$50 additional for starters.

"Resolved: That the winner receive 80 per cent of the stakes; the second, 15 per cent, and the third 5 per cent.

"Resolved: That the Automobile Club of America subscribe \$1,000 toward the sweepstakes.

"Resolved: That subscriptions to the above sweepstakes be asked for from members of the club."

The club is on record as pledging itself to the observance of all speed ordinances and, of course, will sanction no speed contests on the road without special permission of local authorities. It is believed that the American love of sport and the necessity for speed trials in the development of the automobile will arouse a favorable public spirit that will

### AUTOMOBILE SWEEPSTAKES

A. C. A. to Establish an Annual International  
Speed Contest with \$100 Entry Fee

justify the authorities in giving occasional sanction for such contests.

Already in this country are such famous foreign rac-

ing cars as those of Messrs. Vanderbilt and Bostwick, while several of the leading American makers have turned out racing vehicles that have made notable records.

The contest will not be international merely through the presence of foreign vehicles, but foreign chauffeurs and makers eager for American trade and advertisement will surely be in the race.

In fact only last night your correspondent learned from Walter T. Kingsley, an American newspaper man, now in a high position on the London Express, that Fournier, Charron's assistant in his big races and well known in this country as the introducer of motor pace, had told him that Charron was merely awaiting the announcement of the conditions of the big race at Buffalo to come over here for it and that the French chauffeur had in course of construction a 60-horsepower racer for the event.

In addition to the big sweepstakes, which, with the added money, should reach \$5,000, the club by the following resolution decided on the establishment of an annual race for the mile record:

"Resolved: That the Automobile Club of America organize, subject to the consent of the local authorities, an annual race for the mile record, the date and the course to be selected by the committee on races, the course to be properly policed and guarded; entries to be made for steam, gasoline and electric carriages in separate classes; that the entrance fee be \$10; that the club appropriate \$600, for the purchase of three cups, one for the winner in each class."

It is also probable that the inaugural mile record race will be run at Buffalo as the city authorities have, it is said, expressed a willingness to sanction such a contest over the straightaway boulevard leading from the city to the exposition grounds.

## FOR AND ABOUT CLUB MEN.

Motor bicycle, motor tandem, motor tricycle and motor quadricycle races will doubtless be run on the Stadium track during automobile week, making those six days doubtless the most memorable in automobile racing history.



### CHICAGO CLUB'S CENTURY

The Chicago Automobile Club held a well-attended meeting at the club rooms last Thursday evening. The membership is rapidly nearing 100, which figure it is expected to reach within the next three weeks. After that time the initiation fee will go into effect.

Next Saturday afternoon the club will go to Elgin and stay there over night. Sunday morning the members will go down the Fox river to Aurora for lunch, returning to town in the afternoon. This is the century course made famous by cyclists and is one of the finest in Illinois.

Twelve members of the Columbus Automobile Club took part in the first run to Delaware. They took lunch at the Delavan and then returned to Columbus. Among those who made the journey were E. Avery, Mr. Lindenberg, O. S. Lear, Dr. Bassell, Villiers Stewart, Mr. Miller, J. C. Sherwood, Chas. Butin, Campbell Chittenden, Perry Okey and Bernard Goodspeed.



### FOLLOW YOUR LEADER

The prediction has been made by this paper on more than one occasion that club runs will not long endure. There is no reason why they should, and nothing but the most careful attention, on the part of the officers, to the entertainment of members, will cause them to last more than a season.

As the automobile becomes more common there will be no more reason for club runs than there would be for processions of buggies. Club runs are a good thing for the industry in that they encourage the more general adoption of the automobile, but so far as actual pleasure is concerned there is little to be gained beyond the good-fellowship which should and must constitute a part of the program, if members are to be kept together.

Club runs are tame enough already. Begin to hedge them about with restrictions and they will pale into insignificance.

It is desirable that clubs be maintained for the present. Even though they do nothing more, their influence should be lent to the highway improvement agitation and to action leading to the better understanding of the rights of automobilists.

And yet, unfortunately, the Automobile Club of America, an institution after which all similar institutions in this country are patterned, finds it desirable, and perhaps necessary, to adopt a rule which cannot fail to have a detrimental effect on its outings. Here is a copy of a resolution adopted by the board of governors last week:

Whereas, It seems to be impossible to prevent racing of automobiles on the highways during club runs, and

Whereas, The governors of this club are opposed to excessive speed of automobiles on the highways,

It is therefore resolved, That all future club runs shall be paced by a pacemaker, to be selected by the runs and tours committee; that the pacemaker shall set a pace which shall not exceed the speed allowed by law; that, should any pacemaker's automobile become disabled, he shall appoint the driver of a following automobile as pacemaker, and he, in turn, if his automobile becomes disabled, shall appoint the driver of a following automobile as pacemaker, and so on. Any pacemaker appointed by the runs and tours committee or by his successor shall have the same authority as the pacemaker appointed by the committee; that the pacemaker shall be distinguished by means of a red band worn on his left arm; that, should any member of the club pass the pacemaker, he shall be suspended, and, on a second offense, he shall be expelled from the club.

It goes without saying that the club intends to do what its officers consider best for the sport generally. And yet it is to be feared and regretted that the rule quoted will ultimately drive many at present enthusiastic supporters into the ranks of the "unattached."

So long as the competitive spirit exists in man attempts to prevent an occasional trial of speed, no matter what the law may say on the subject, will prove abortive. Despite speedways provided for the purpose of speed trials, horsemen always did and always will let their speedy animals go whenever they can do so without fear of arrest. And so it will be with the automobile. The development of machines must be considered, too. Later, when the various powers shall have been demonstrated and the theories of inventors shall have been proven right or wrong, the desire of manufacturers for speed trials will be lessened. At this time they are looking for information, and that they will get it may just as well be accepted as a fact now as at any time.

That being the case, there is little use in attempting to curb the ambition of



## FOR AND ABOUT CLUB MEN.

club men. The fact that men are active members of a club and regular participants in its runs indicates, generally, that they are enthusiasts and willing to try a dust-up with other members. They are, for the greater part, young men, fond of high-powered, speedy machines; devoid of the conservatism which will have become part of their nature 20 years hence, when the auto shall have taken the place of the buggy and when the novelty of automobilism shall have gone forever.

This article is not designed, by any means, to encourage racing on club runs. It is the duty, perhaps, of every law-abiding person to discourage speed which shall be dangerous to other users of the roads. But why disguise facts? Whenever two or more automobilists are gathered together, whether it be on a club run or otherwise, there, without question, rivalry will arise, and with it a desire to test the speeds of machines. There are places, as in the cities, where this spirit may be quelled, by force if need be, but once in the country an attempt to enforce any rule will lead to failure and in the case of club runs to such a diminution of interest as will kill the runs for all time.

The Automobile Club of America evidently thinks it can control the speed of its members. Perhaps it can. Expulsion from the club would be considered something of a disgrace by a majority of the members. They will not accept the risk. They will behave like good boys for a few weeks, and then the club run will know them no more. They will prefer to drive in groups of two or three where no eagle eye is on their motions and where no red badge stands as an ever-present threat of vengeance to follow an outrage to the dignity of its wearer.

### MADE A COAST RECORD

A score of San Francisco owners recently made a run to San Jose, over one of the finest stretches of road in the world and spent three days in that city. A number of speed trials were made there. The most important event took place on the mile track at Agricultural park, where a machine run by W. S. Arnold and F. Rockett broke all records for automobiles on the coast. Unofficially the automobile, which was an ordinary road carriage, went a mile in 1:33, with a strong head wind blowing down the home stretch. The steam pressure was 400 pounds at the start and 110 at the finish. On the curves the machine slid badly and the speed had to be slackened somewhat. The next day the same auto, with the

same drivers, officially established the coast record of 1:34 4-5.

### WINTON'S LONG RIDE

When last heard of Alexander Winton and Charles B. Shanks were at Reno, Nev., which point they reached at 9:15 a. m. Monday, having finished the journey over the Sierra Nevada mountains. Their next tussle was to be with a long stretch of sand.

### CHICAGO MEN WILL RACE

Members of the Chicago Automobile Club and other local owners of vehicles are becoming sporty. They have read so much of the racing which goes on in the east that they are anxious to try a little of it for themselves and have asked this paper to undertake the management of a contest or a series of contests. An effort will therefore be made to secure the permission of the west side park commissioners to allow a race some Saturday afternoon in the near future. The course proposed is from Ashland avenue, south to Twelfth street, west to Douglas park, north through Garfield and Humboldt parks and back by way of Washington boulevard, finishing at Union park.

### A. C. A. NOT S

New York, May 26.—An A. C. A. club run to New Haven was scheduled for yesterday, but the storm was too severe for so long a journey and the outing was called off. Notwithstanding the weather nine "rainy daisies" were on hand for the start, among them being G. B. Adams, Jefferson Seligman, Dave H. Morris, H. W. Whipple, C. J. Field, A. C. Bostwick, J. A. Blair and two or three guests.

It is expected that the new rule confining the pace on runs always to a legal pace set by a pacemaker appointed by the run committee will result in a revival of the large attendance of the members. In several of the spring runs the "fast pack" insisted on making a race of it and not only destroyed the whole spirit of such an affair, but brought the club into disrepute through violation of speed ordinances. In this connection it may be noted that the Board of Governors has investigated these violations of speed ordinances and found the stories of the speed attained greatly exaggerated.

The law committee has as yet made no report of the Central Park ordinance test, though it has one in preparation. In the meantime the ordinance, so far as enforcement, has fallen into innocuous desuetude through official neglect.

The committee in charge of the Buffalo

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endurance run—W. M. Power, chairman; W. E. Scarrett and H. W. Whipple—are all "amateurs," a term now applied by the members to those not connected with the trade.

A. R. Shattuck, president of the A. C. A., and his friend J. Dunbar Wright, whose departure for Europe was chronicled last week, will tour the continent in a 16-horsepower Panhard. They expect to ride about 4,000 miles. Wright has ordered an American machine of similar power for use in the endurance test in September.



### EXCESSIVE SPEED IN CITIES

Despite laws, warnings and common sense many automobilists—and club members are not excepted—run their machines over the streets and roads at a pace which cannot be considered fair to other users of the thoroughfares or in keeping with common sense. Leading members of clubs take sufficient interest in the welfare of automobilism to devote their time to the passage of laws which will establish their rights and within a week members of the same clubs give cause to the authorities to wish the laws had been made more stringent. This being the case the opposition of farmers and drivers will continue.

The Chicago Club has experienced difficulty in this direction. After the first run of the season—which, by the way, was supposed to be a mere procession—the secretary was notified by the Lincoln park commissioners that if ever the club raced through the park as it did on that occasion they would give instructions that such measures be taken as to insure a ride for all parties concerned without the use of horseless vehicles. And yet the practice continues. There was no abatement of speed on the occasion of the last run. The members went through the park faster than before. No sooner has a run started than it develops into a race.

To overcome this the club has appointed a committee to draw up such rules as will force compliance with the law and respect for the rights of other users of the streets. There have been two accidents as the result of excessive speed on club runs and the officers feel that if the same style of thing continues the club will soon find itself in bad odor with the public and the city officials.



### LIMIT SPEED POSSIBILITIES

Of course it must have occurred to many thinking users of automobiles that unless drivers pay attention to the laws laid down for them the authorities will,

in the time to come, carefully consider the adoption of such laws as will make excessive speed an impossibility. While the Automobile Club of America hopes to check the wild plunges of its members on club runs by providing a pace-maker, the Automobile Club of France has shown that it recognizes the possibilities of action by the authorities by giving consideration to the restriction of the sizes and horsepower of machines.

This information is contained in a cablegram from Paris to the New York Herald. The police crusade against chauffeurs has cost an unfortunate cyclist his life, says the dispatch. He happened to be in the way of an automobile which was being pursued by the cycle police. The result was that the chauffeur, too anxious to avoid arrest, ran over the cyclist.

Approos of the reproach of excessive speed against automobiles, I hear that the automobile club is bringing up the question of restricting the sizes of machines. Reduce the size and put a limit on the speed; such are the club's watchwords. Chauffeurs are looking up to the fact that a carriage weighing over one ton and consuming enormous quantities of oil is no good except as a racing machine.



### A RACE TO MILWAUKEE

A race which, had proper precautions been taken as to the route to be followed, might have been more interesting, occurred on Sunday between James Levy and Joseph Gunther, both of Chicago. There has long been a controversy between the two as to the relative merits of the Cleveland motor tricycle operated by the first named and the gasoline vehicle made at the G. & J. factory of the American Bicycle Co. and operated by Gunther. Finally a race to Milwaukee was arranged and Sunday was the day set for its decision. Levy's machine weighed 250 pounds and, of course, carried but one passenger. The other weighed 1,800 pounds and in it, with Gunther, was A. L. Winter.

The event demonstrated the thorough practicability of both vehicles, but it also demonstrated the superiority of the heavier vehicle, with its wide tread, over the tricycle with its narrow tread, on rough country roads. The men started from the water works on the north side and so long as they were on the boulevards and good roads Levy found no great difficulty in keeping up with his opponent. When the rough road was reached, however, he was unable to hold the pace. The roads were hard and bumpy and with all his skill Levy had all he could do to keep the

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machine on the best part of the road. He confessed on Monday that he had never undergone such a bumping in his life.

Gunther had a further advantage. He knew the road and Levy didn't. The result was that the latter went astray and took to plowed fields and all sorts of going in his endeavors to find the right one, assisted, of course, by the road experts among the rural population. Then he found that his piston had tightened, and after a number of stops found that the plug in the bottom of the crank chamber of his engine had been lost and that the lubricating oil flowed out as fast as he put it in.

Levy lost the road soon after passing Libertyville. It took him 8 hours and 40 minutes to make the journey and he forthwith registered at the Plankinton and had the clerk there check his time. He found no trace of Gunther and concluded that he had won, but was undeceived on his return to town when he found that his opponent had arrived in Milwaukee 6 hours and 5 minutes after leaving Chicago.

Levy returned to Chicago by the night boat, but Gunther came down by road on Monday.

### AUTOMOBILE TEST AT LAW

On Thursday of last week the law governing the operation of automobiles in New York was argued in a case in the appellate division of the supreme court. The case is the appeal of Louis W. Moore from a judgment of \$200 damages and costs, amounting in all to \$308.25, in favor of T. Cook Royal, a doctor residing in Ballston Spa.

On September 3, 1900, Dr. Royal and his wife were driving when they met Moore and his son, Louis Moore, in an automobile.

Royal's horse became frightened and backed into a ditch, wrecking the carriage and harness. There is no dispute to the facts, but the legality of the judgment rendered is disputed on several grounds: First, that there was no negligence shown; second, that the plaintiff, Dr. Royal, was not free from negligence, and thirdly, that the statute quoted does not apply to automobiles. The law in question is the highway law of 1890; the section 155, compelling persons operating traction engines on highways to send a messenger at least an eighth of a mile ahead.

The attorney for the appellant, the owner of the automobile, says: "It may be said at that time (the time the bill was passed) steam threshing machines were the only self-moving steam engines of which the average man or legislator

knew. Such an act must clearly have applied to conditions then existing; to some evil which required a remedy; and it could not possibly be brought to apply to things of which they then knew nothing, and which did not come into being until long afterward.

"This court knows that the steam automobile has not come into use as a practical thing until within the past two or three years. So it requires no argument to show that a thing which did not exist could not be within the intention of the lawmakers. \* \* \* It is therefore clear that the automobile was not in the intention of the lawmakers; the statute did not apply to the automobile and the court erred in charging the jury that it did so apply."

The finding of the court has not yet been announced.

### PARIS-BORDEAUX RACE

The Paris-Bordeaux and Coupe Internationale combined automobile race will be the event of the season. It starts near Saint Cloud on Wednesday morning at half-past three. Concerning the event a cablegram to the New York Herald says:

"The trip may be made in eight hours, which would mean seventy kilometers an hour, the distance being 560 kilometers. The cup contest has evidently narrowed to the French and English, as the Germans have practically retired except in the open part of the race, although it is now said that one German will compete for the cup and probably three German machines will be in the open part, one of which is owned by Baron Henri de Rothschild.

"Naturally M. Charron is the favorite. He has the greatest nerve and knowledge of the route. The English fifty horsepower automobile might be promising, but the drivers are not so familiar with the route. In fact, the drivers are not yet chosen, but will be to-night. M. Charron has tested the machine on which he will compete in the Paris-Bordeaux race for the international cup by a wild ride from Paris to Treport, a distance of 112 miles, which he covered in two hours and ten minutes, almost an hour quicker than the train which on that line is described as the 'rapide.' It is thought that he will cover the 350 miles between Paris and Bordeaux in less than eight hours sure."

### THE BRIDGEPORT CLUB

The secretary of the Automobile Club of Bridgeport, Conn., sends the following list of gentlemen who have lately joined and will buy new machines this season: Frank Miller, David F. Read, Gregory S.

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Bryan, George W. Hills, Charles G. Sanford, Frank W. Bolande, Jesse R. Cornwall, A. K. L. Watson and Dr. C. C. Godfrey. Four makes are involved, the well known DeDion-Bouton, the Long Distance, an untried possibility, and two steam vehicles.

Jesse B. Cornwall, of the Cornwall & Patterson Manufacturing Co., the first man in Bridgeport to own and operate a steam carriage, has ordered a New York type De Dion-Bouton Motorette.

A party of Bridgeporters visited the factory of the U. S. Long Distance Automobile Co., in Jersey City, lately. Several of these machines have been ordered and are expected by June 1.



The Bridgeport Automobile Club now has 30 members. The latest to join are David F. Read and Louis Neuberger.

The membership of the Automobile Club of America now numbers 320 or thereabout.

A meeting is to be held at Toledo on June 4 for the purpose of formally organizing a new club and adopting a constitution therefor. The meeting will be held at the rooms of the Toledo Automobile Co., 623 Jefferson street. The charter members of the club are J. H. Diebel, A. C. Neel, J. N. Bick, J. W. Caldwell, Robert Allen and Peter Gendron.

Some thoughtless owners of an automobile will shortly be the cause of a vacancy in the police force. Two stranded vehicles were recently found in Washington. Officers attempted to operate them and came near doing themselves and others bodily injury. The machines were finally landed at the police station.

Willie Windle, until the appearance of Zimmerman, the champion cyclist of America, has become an automan and takes as much interest in the new sport as he once took in the old. His old sporting blood is responsible for an occasional brush with anyone who happens his way on the roads around Worcester, Mass.

## AUTOMOBILE CLUB DIRECTORY

Automobile Club of America, Malcolm W. Ford, secretary, 203 Broadway, New York.

Automobile Club of Baltimore, W. W. Donaldson, secretary, 872 Park avenue, Baltimore.

Automobile Club of Bridgeport, F. W. Bolande, secretary, 49 Cannon street, Bridgeport, Conn.

Automobile Club of Brooklyn, C. Benton Dix, secretary, Hotel Clarendon, Brooklyn, N. Y.

Automobile Club of Columbus, C. M. Chittenden, secretary, Broad street, Columbus, O.

Automobile Club of New England, Mr. McQuestion, secretary, Brookline, Mass.

Automobile Club of Rochester, Fredk. Sager, secretary, 66 East avenue, Rochester, N. Y.

Buffalo Automobile Club, Ellicott Evans, secretary, Lenox Hotel, Buffalo, N. Y.

Chicago Automobile Club, H. M. Brinckerhoff, secretary, Steinway Hall, Chicago.

Cleveland Automobile Club, L. H. Rogers, secretary, Cleveland, O.

Columbia College Automobile Club, Lewis Iselin, secretary, Col. College, New York.

New Bedford Automobile Club, E. G. Watson, secretary, New Bedford, Mass.

Indiana Automobile Club, August Habich, secretary, Indianapolis.

Long Island Automobile Club, C. W. Spurr, Jr., secretary, 552 State street, Brooklyn.

Massachusetts Automobile Club, L. E. Knott, secretary, Ashburton place, Boston.

National Capital Automobile Club, Winifred J. Foss, secretary, Fourteenth street and New York avenue, Washington, D. C.

Dayton (O.) Automobile Club, E. Frank Platt, secretary and treasurer.

New Jersey Automobile Club, Dr. H. Power, secretary, Upper Montclair, N. J.

North Jersey Automobile Club, E. T. Bell, Jr., secretary, Patterson, N. J.

Philadelphia Automobile Club, Frank C. Lewin, secretary, Hotel Flanders, Philadelphia, Pa.

Pennsylvania Automobile Club, H. J. Johnson, secretary, 138 N. Broad street, Philadelphia.

Rhode Island Automobile Club, F. A. Fletcher, secretary, 42 South Water street, Providence.

San Francisco Automobile Club, B. L. Ryder, secretary, San Francisco, Cal.

Troy (N. Y.) Automobile Club, J. S. Thiel, secretary.

Worcester Automobile Club, H. E. Sheldland, secretary, Worcester, Mass.





## NEWS OF THE MOTOR INDUSTRY



### SAYS WARING DIDN'T PAY UP

The firm of Woods, Waring & Co. is no more.

People have been wondering about the progress of the concern for a month or more, especially as the few creditors have been unable to obtain any satisfaction. A representative of this paper who called at the offices formerly occupied by the concern, one day last week, was informed that they had gone, taken their effects with them and left no address. The landlord was in possession of mall matter, for which, he supposed, the members of the firm would call.

On May 23, Clinton E. Woods issued a notice to the creditors of the firm. He said that owing to the fact that Mr. Waring, who was to provide the finances for prosecuting the business, had failed to do so, he was unable to proceed further or meet the obligations, as he had no resources of his own on which to draw for money. The firm had liabilities of about \$3,000, and absolutely no assets. For further details creditors were referred to Charles B. Wood, an attorney in the Metropolitan block, Chicago.

For some time the movements of Mr. Waring have been uncertain. It is now said that he is in California. He formerly conducted an art store in the Steinway Hall building, but this was closed a month or more ago. Mr. Woods is now in the east and it is said that he expects to dispose of certain patents and drawings and to pay a part of the firm's indebtedness from the proceeds.

### DOUBLED THEIR CAPITAL

The annual meeting of the Haynes-Apperson Co., of Kokomo, Ind., was held last week, and it was decided to increase the capital of the concern from \$50,000 to \$100,000, an increase due to the calls made upon the company for more rapid production. The Haynes-Apperson is one of the companies which has made little fuss, but has been turning out vehicles at a profit and has never been able to keep pace with its orders. Four of

its vehicles have been added to the Chicago list in the last few weeks and others would follow shortly were the company able to guarantee more prompt delivery. Hence the decision to add to the capital and plant. The following officers were elected: Elwood Haynes, president; G. W. Charles, vice-president; Elmer Apperson, secretary; C. H. Haynes, treasurer, and C. C. Cartwright, in addition to the officers, directors.

### KNOX, DURYEA AND THE TEST

Three-wheeled vehicles, of the Duryea and Knox types, are practically barred from the endurance test between New York and Buffalo, in September, as the reader has already been advised. The reason is that the rules provide, specifically, for four-wheeled vehicles. There is a motor cycle class in which it might be possible for three-wheelers to compete, but to this arrangement the makers could hardly be expected to give favorable consideration.

Possibly the fact that there are so few makers of vehicles of the three-wheeled class may account for the fact that no proper provision is made for them. At any rate, the makers do not seem to regard the matter as of vital importance, none of them having raised the point, except in correspondence with the officials of the Automobile Club of America, from whom they seem to have received no encouragement.

"We wrote the Automobile Club of America regarding the proposed rules before they were adopted," says Mr. Duryea, "and were advised that our vehicle would show up as well in the tricycle class as in any other, and since we have not yet definitely decided to enter the contest, we have not felt like raising further objections.

"We really have no vehicles on hand for exhibition purposes, so that we do not yet see our way clear to enter the vehicles needed for this contest. It would seem to us, however, that vehicles should be classed by weight or by carrying capacity, rather than by number of

wheels, and it further seems to us that classing us with tricycles puts us in a false position before the public. We invariably are classed in a wrong position by unthinking people who fail to distinguish the difference between carriage and cycle construction. Our vehicle is not a cycle in any respect. It has carriage construction throughout.

"The writer formerly built four-wheelers only, and has had a longer experience with same than other builders in this country, and we are now using three and four-wheelers, of identical construction back of the forward axle, side by side so that we know the superiority of the three-wheeler and know that we are right in this matter. This being true, any classification which misleads the public is not just to either us or to the public, and on this account we should not be excluded from that class where other carriages of like weight, like capacity or like construction are placed."

#### FACTORY AT SAN JOSE

The Christman Motor Carriage Co., which was recently incorporated and which began business about two months ago with a factory in Los Gatos and offices on Second street, San Jose, Cal., will move to San Jose as soon as accommodations can be secured. The company will occupy a space about 60x150 feet and will employ a big force of skilled workmen.

The company will place a chainless motor carriage on the market.

#### STUCK TO THEIR JOBS

Syracuse, May 25.—William Van Wagoner, general manager of the Century Motor Vehicle Co., won an easy victory over union machinists at his shop this week. Monday afternoon the union machinists secured the signatures of the majority of the men in the factory to the demands which the machinists are making in their general strike. The paper was taken to Mr. Van Wagoner and he was told that if he did not sign the men would all go out.

He asked until the next morning to make his decision. At that time he called the men into the office and told them that he had decided to close the shop indefinitely. He said that the business was still in an experimental stage and there was no money in it for anyone at present and that the company could not afford to make the increase in wages asked by the union men.

The men were disappointed at the prospect of losing their jobs and went away.

The next day a large number of them came back and asked to be hired over again. When he shut down the shop, Mr. Van Wagoner told the men that they could consider themselves discharged. Some of the men explained that they did not know what they were signing and had attached their names to the paper under the impression that it was simply to get the opinion of Mr. Van Wagoner on the question. Many of the men were hired over again and the factory is now running. It is thought that the strike will not cause much trouble in Syracuse.

#### ON ALBANY'S HILLY STREETS?

The many inconveniences to which the public was subjected during the recent strike at Albany is declared to have partly been the cause of several gentlemen proposing to operate automobile lines. One gentleman said: "It seems to me that it is but a question of time when the autos will succeed the trolleys. I have learned recently that a company may be formed within a month or so to operate automobile lines through the city of Albany."

#### KICKS COMING

Seymour, Conn., May 20.—To the Editor:—Why do not some of the automobile makers add a pump for pumping the necessary air pressure into the gasoline tank? It might be easily done by providing an additional bearing to the crank shaft, running the shaft through the bearing and continuing out far enough for the application of a friction clutch. On the clutch there might be a crank to produce the motion for the pump, the clutch to be controlled by a handle at the seat of the vehicle. By this arrangement the pump might be placed in motion as the vehicle traveled down hill, thus avoiding the use of the steam and assisting the brake.

The writer knows of no steam vehicle whose boiler will supply sufficient steam to keep the engine up to full power on our Connecticut hills. Nor does he know of a pump that is connected with the engine that will supply water to the boiler as fast as used under like conditions.—Yours truly, Progress.

This correspondent's first interrogation is one that has been broached by many of late, but before long it will doubtless be unnecessary, as many of the steam vehicle builders are just now preparing to supply such an automatic air pressure pump and certain of them already equip their vehicles with these pumps, notable among the latter being the Milwaukee



Automobile Co., of Milwaukee, and the Overman Automobile Co., of Chicopee, Mass. The two last objections to steam vehicles as now built deal with problems of a general nature, to solve which is the task of all steam carriage builders. To increase the working efficiency of steam automobiles is one of the primary features of the development of that branch of the industry.

### SHE SELLS MANY MOBILES

Reference was recently made in this paper to Mrs. L. M. Adams, a southern representative of the Mobile, at 612 Main street, Houston, Tex., who claims to be, and probably is the first female automobile agent in the United States.

Mrs. Adams sends a photograph of Freddy and Bonnie Adams, operators of



Master Freddie and Miss Bonnie Adams.

the Mobile. The picture was taken during a Texas cyclone and therefore is not of the best, but it shows a couple of youngsters who are as enthusiastic in the cause as Mrs. Adams herself. That lady writes: "We are doing a fine business all over the state. We expect to send, this week, the first order for a car-load of automobiles ever shipped into Texas. As pioneers here I am 'bound to say we are getting along famously."

### THE PRICE OF ELECTRICS

New York, May 25.—An official of the Electric Vehicle Co. was interviewed today by a Motor Age man on the recent reduction in the price of the company's pleasure vehicles.

"The reduction in the price of our carriages," said he, "is a mere business proposition. We have facilities at our factory for turning out vehicles at far less

cost than others and we had a large number of them completed. It was a mere competitive move, common enough in all business. The reduction applies only to pleasure vehicles. Our delivery wagons and business vehicles are all practically made to order and are not affected by the reduction. We expect to push vigorously the sale of our pleasure vehicles all along the line. How popular they are at the new figure may be judged from our sale of 85 of them this week."

### STRANGE ERROR ABOUT CENTURY

Syracuse, May 21. To the Editor:—We think there has been a report circulated about a week or so ago that our plant was either partially or totally burned. We cannot imagine where this originated, but the name of our firm may have been used for that of some other. This has, to a certain extent, given the public the impression that we are unable to fill our orders, which we wish to contradict.

Also some similar report may be circulated in the course of a day or two in connection with the prevailing labor troubles of the machinists. Some of our machinists who were dissatisfied made a demand on us yesterday which we could not concede. Enough men remained at work to warrant our getting out any orders we already have in hand.—Yours truly, Century Motor Vehicle Co.

### NEW LIST OF OWNERS

The following names should be added to the list of owners of automobiles: Frank Smith, Missoula, Mont.; Mrs. F. H. Blackman, 4011 Lake avenue, Chicago; Mrs. S. E. Varrell, 149 Lincoln Park boulevard, Chicago; J. B. Pound and Dr. H. Berlin, Chattanooga, Tenn.; Bruening Bros., Iowa Falls, Ia.; D. F. Poyer, Menominee, Mich.; Prof. G. A. Herradon, Jackson, Mich.; Henry Stambaugh, Roland Steese, Harry Tod and E. L. Ford, Youngstown, O.; DeWolff Hopper, New York; Jesse Stevens & Co., Fairbury, Ill.; Harry Stull, South Bend, Ind.; C. W. Radford, Oshkosh, Wis.; J. George Smith, St. Paul, Minn.; H. Villiers Stuart, Columbus, O.; C. V. Mason, New Britain, Conn.; Dr. Stanford Stevens, St. Albans, Vt.; Henry Severin, Indianapolis, Ind.; Frank Cook, Paris, Ill.; Harry Wall, Oshkosh, Wis.; Dr. D. W. Ashum, Eau Claire, Wis.; Arthur B. Wells, Southbridge, Mass.; Dr. Roberts, Pittsfield, Mass.; W. H. Cummings, Macomb, Ill.; Edward Coykendall, Kingston, N. Y.; Dr. Thomas L. Kane, Kane, Pa.; Dr. C. H. Gabeler, Troy, N. Y.; Dr. Emil Windmuller, Woodstock, Ill.; W. W. Hastings,

## NEWS OF THE INDUSTRY.

Glenwood Lake, N. J.; H. E. Hass, Cambria, Wis.; Adolph Decker, 712 Fidelity Building, Baltimore, Md.; Dr. W. E. Upjohn and O. K. Buckhout, Kalamazoo, Mich.; Dr. George Stone, Metamora, Mich.; E. A. Cooper, Britton, S. D.; Elam Miller, Marshalltown, Ia., the second owner in that town; H. E. Chubbuck, Quincy, Ill.; Dr. J. C. Jackson and A. A. Miller, Fort Plain, N. Y.; F. W. Platt and H. S. Youmans, Winona, Minn.; Dr. Courtney Smith, Aurora, Ill.; James Richardson, Dr. J. W. Keefe and R. Lincoln Lippitt, Providence, R. I.; Byron Carter, Jackson, Mich.; Charles W. French, Sherman avenue, Mansfield, O.; J. C. Lee, Watertown, N. Y.; Archille Phillon, Akron, O.; Dr. Pontious, Fremont, O.; Charles F. Ward, Showhegan, Me.; Owosso Hardware Co., Owosso, Mich.; California Health Resort Co., San Jacinto, Cal.; Goodwin & Co., Norfolk, Va.; Dr. Walter H. Jones, 17 West Fifty-fourth street, New York; William H. Crain, Rockville Center, N. Y.; Grant Courtwright, Columbia, Tenn.; Mr. Newbold, Louisville Electrical Works, Charlestown, Ind.; Dr. Work, Charlestown, Ind.; Counselor Halstead H. Wainwright, Manassquan, N. J.; Dr. W. S. Stevens, St. Albans, Vt.; the first machine owned in that city; L. H. Withey, Michigan Trust Co., Grand Rapids, Mich.; F. M. Arnold, Jr., agent, Clarion, Pa.; Dr. E. A. Thompson, Bangor, Me.; L. T. Hawkins, Flora, Ind.; Joseph West, Milton, Ore.; J. L. Elain, dealer, Milton, Ore.; Edward Coykendall, Kingston, N. Y.; Neel & McDonald, Van Wert, O.; Peat & Smith, Missoula, Mont.; James Ringle, Geneseo, Ill.; L. T. Hawkins, Flora, Ind.; George E. Willis, Auburn, Mo.; F. J. Johnson, Oakland, Cal.; Michigan S. M. & O. Co., Owosso, Mich.; Courtland Linkrum, Hackensack, N. J.; Waldo C. Bryant, Bryant Electric Co.; Ernest V. Sloan, American Graphophone Co.; David F. Reed, Charles G. Sanford and Louis Newberger, all of Bridgeport, Conn.

### FOR PASSENGERS AND FREIGHT

The Idylwild & San Jacinto (Cal.) Transportation Co. has been incorporated with a capital stock of \$100,000, divided into one hundred shares of a par value of \$100 each. The amount of the capital actually subscribed is \$6,000, and the directors of the company are Dr. Walter Lindley, Dr. F. T. Bicknell, E. R. Smith, Frank P. Flint, all of Los Angeles, and J. E. Dunham, of San Jacinto. Its purpose is to conduct a line of passenger and freight communication between San Jacinto and Strawberry Val-

ley, where big improvements in the way of health and pleasure accommodations have just been made by the California Health Resort Co.



Although comparatively few American automobiles have been built with the weight of the motor placed upon the front wheels, makers seem to be working in that direction. A German scientist named Mueller, after careful investigation, finds that the power consumption is smallest when the weight is equally distributed on both axles, with the four wheels are as large as possible, eight feet being the greatest safe wheel diameter.

M. J. Budlong, manager of the Electric Vehicle Co.'s Chicago branch, left for New York to confer with the powers-that-be, on Monday night. He will return at the end of the week and expects to be followed almost immediately by the first consignment of electrics. In the course of two or three weeks the Chicago store will receive one of the new gasolines turned out at the Riker factory.

Mr. Davis, the Knox Automobile Co.'s demonstrator, who was with Mr. Knox at the Chicago show, is still in Chicago, but has visited a number of western cities in the meantime. He reports that the sales of the little machine have been satisfactory and that his company is well pleased with the business done in this territory for the first season.

George B. Thompson, A. B. Brown, William Drury, Meyer Schlosser, M. W. Morris, Millard Sacks, W. G. Thomas, N. D. Smith and Mr. Gunster, of Wilkesbarre, are at the head of a movement to establish an automobile bus line between Pittston, Pa., and nearby towns. They expect to buy one or more electric vehicles.

A rotary engine which uses 98 per cent of the available power, weighs 60 pounds, and is said to develop four horsepower, is said to be the latest production of the inventive world. The inventor of this phenomenon is W. A. Morgan, of Richmond, Ind., who is reported to have worked on the problem seventeen years.

The Midgley Mfg. Co., whose tubular wheels were introduced to the automobile trade at the Chicago show, has received an order for a set from India. The gentleman who ordered them said that on account of the heat it was impossible to use wood spokes successfully, because of their becoming loose in the rims from shrinkage.

## NEWS OF THE INDUSTRY.

Akron, O., intends to have a local automobile show in June. The Automobile Exhibition and Motor Cycle Racing Co. has been organized, and it is intended to ask Ohio makers of automobiles and tires to make an exhibit in connection with a race meeting.

A steam vehicle, in general design very similar to others with which the trade is familiar, has been constructed by J. W. Freeman, the owner of Freeman's foundry, a big institution at Joplin, Mo. It will be ready for trial on the road in a few days.

R. H. Cloughley, of Parsons, Kan., who has invented something in the automobile line, has succeeded in organizing a company to manufacture. Its factory will be established at Cherryvale, Kan., and it is said that it has a capital of \$100,000.

A general livery business is to be conducted by the Auto-Carette Co., of Buffalo, which starts business with a capital of \$10,000. J. L. Dyer, of Athens, Pa., and J. J. Dennison and W. P. Conley, of Buffalo, are the directors.

The Tivy Bicycle Co., of Williamsport, Pa., is refitting its store preparatory to putting in a line of automobiles. H. A. Rantz, of the company, has finished building a steam machine at a cost of about \$850.

The Overman company made a shipment of its machines to the Pan-American exposition last week. It will exhibit five altogether, including a surrey and an express wagon.

Godwin & Co., of Norfolk, Va., and A. Wrenn & Son, of the same place, have constructed an automobile, the former contributing the machinery and the latter the body.

Paul Kosholleck, of Stevens Point, Wis., who has had considerable experience in building engines for boats, is now at work on one for a bicycle. The first will be of 1 horsepower.

Referring to three automobiles owned in Fort Dodge, Ia., the Chronicle, of that

place, says: "The trio of horseless one-horse shays are all of the same breed, sired by Mobile and damned by everybody who gets run over by them." The three owners, John Schaupp, Dr. Alton and Louis Armstrong, are about to engage in a race.

The Young Brothers, well known cycle dealers, of Youngstown, O., have secured the agency for an automobile and will dispose of their stock of cycles. They will continue their repair department.

H. S. Youmans, of the New Winona Mfg. Co., Winona, Minn., is operating with success a vehicle built for him by his own concern. The possibility of a factory is now under discussion.

The Observation Automobile Co. is a newly organized Buffalo concern with a capital of \$100,000, to operate, build, sell and lease automobiles for the transportation of passengers.

The Chicago store of the Milwaukee Automobile Co. has received an express wagon, the company's latest production. The racer is also on exhibition at the Chicago store.

The new Jeffery automobile was tested at Kenosha last week and pronounced satisfactory. None need be expected on the market for some months, however.

The Michigan S. M. & O. Co., of Owosso, Mich., has secured the agencies for the Mobile and the Thomas Auto-Bi.

A report is again in circulation to the effect that capitalists are seeking to establish a factory at Niagara Falls.

L. T. Hawkins and E. G. Kitzmiller have secured the agency for the Milwaukee steam vehicles at Flora, Ill.

George Manning, of Lewiston, Me., who has already made one automobile, is now at work on two more.

A factory for the manufacture of steam machines has been established at Uniontown, Pa.

Rumor has it that West Bay City, Mich., is to have an automobile factory.

## CONSTRUCTION OF A MOTOR QUAD

**T**O MEET the demand for practical working drawings and comprehensive instructions for the construction of a motor quadricycle of modern and practical design, this paper will begin the publication in the next issue (June 6) of a short serial on this topic. It has been

prepared by L. Elliott Brookes, the writer of the articles previously published in the Motor Age on the construction of a gasoline motor and of a gasoline motor vehicle, and will be not only plain, clear and comprehensive, but well illustrated.



## AUTOMOBILE PATENTS AND MECHANICAL TOPICS



THE Anderson invention described below, and which comprises the combination of a hydro-carbon air compressor to drive a compressed air engine together with the discharged gases from the compressor, which latter are introduced directly into the engine, is probably an example of the many schemes which are to appear in the next few years as the result of efforts to make explosive motors elastic power mediums by transforming their energy into something more easily governed than are the primary explosions.

Thus, while one factor of the industry will be a-working at the problem of gasoline engine speed regulation, another, and more visionary, factor will be laboring hard at transformers, mechanical and pressure storage batteries and explosion accumulators. By the way, the term explosion accumulator is here original. It may not count for much in the industry but it is liable to appear in effect before the patent examiners to a considerable extent in the next two years. There are plenty of inventors who would just as soon endeavor to accumulate explosions as anything else, and when these inventors reckon that they can palm off the accumulated explosions upon the rear axle of an automobile at any gait desired they are liable to think explosion accumulation a profitable road to wealth accumulation.



### EXPLOSION TRANSFORMER

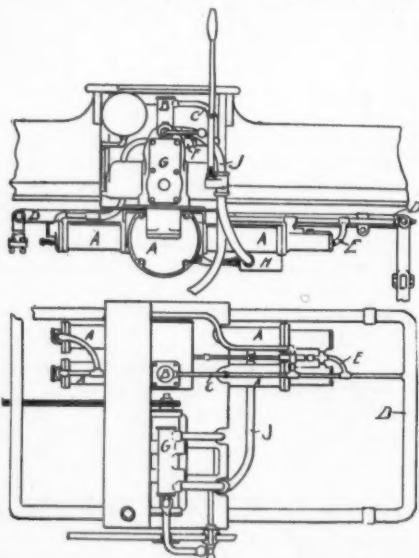
Letters patent No. 674,372, dated May 21, 1901; to James C. Anderson, of Highland Park, Ill.

Mr. Anderson, who in the past has been a prolific inventor of military and other special bicycles, has taken hold of motor vehicle invention with a will and now has to his credit several patents, a number of which refer particularly to hydro-carbon air compressors and special engines intended to operate in conjunction. The above patent refers to a combination of such a compressor and engine in a vehicle with the questionable object of driving the engine, and from

thence the vehicle, with air compressed by the explosive motor and with the products of combustion of that motor.

In the accompanying illustrations the hydro-carbon air compressor is indicated by A. From its final air compressing chamber B leads a pipe C to a tubular compressed air reservoir D, forming part of the running gear frame of the vehicle. A branch E from the pipe C leads to the explosion chamber of the air compressor A, while a second branch leads to an inlet check valve F on the engine G. Underneath the hydro-carbon air compressor A is an exhaust chamber H into which are discharged the products of explosion, and from this chamber extends a pipe J to the engine, the pipe being provided with a throttle.

The air compressed by the motor charges the reservoir D after a certain portion of that produced by each initial



Anderson's Explosion Controller.

stroke of the motor piston has been returned to the explosion chamber through the branch pipe E. This returned compressed air when charged with gasoline



## AUTOMOBILE PATENTS.

is used as the explosive charge without further compression and, according to the inventor, dispenses with the fly wheel and compression strokes of the motor.

The compressed air charged in the reservoir D, by passing through the valve F, enters the engine and combines with the discharged gases from the exhaust chamber H to drive it. Both the compressed air and exhausted gas feed pipes may be shut off from the engine and their feed regulated to furnish different speeds. The engine is also provided with a reversing lever and mechanism.

Aside from the charming elasticity of drive furnished by this power medium it permits the air compressor and the engine to be stopped at any time and started instantly, says the inventor, by simply turning on compressed air which has been left in the reservoir D. If after a long quietus there is insufficient air charge in the reservoir to accomplish this purpose a few strokes of a hand or foot pump will fill the bill and away she goes! Oh, were it true that such machines were as easily built in shops as on paper!

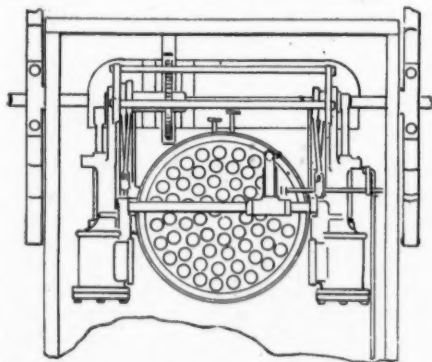


### FLEXIBLY MOUNTED ENGINE

Letters patent No. 674,665, dated May 21, 1901; to John C. Blevney, of Newark, N. J.

Mr. Blevney provides means in this invention for mounting the engine pivotally upon the boiler in such manner that by means of an adjustable distance rod the tension of the driving chain between the engine shaft and rear axle sprockets will remain constant.

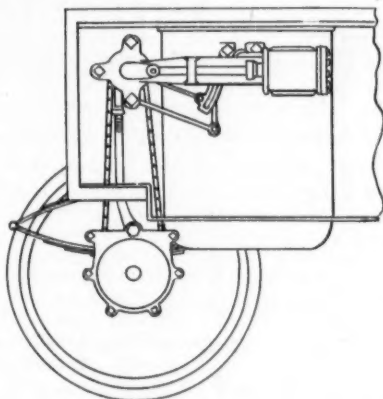
The engine has two cylinders, each of which is pivoted in a normally horizontal position on the side of the boiler shell.



Plan of Blevney's Engine.

Both engine cylinder frames are carried by a cross steam pipe which is rotary in a steam tight steam chest in the upper portion of the boiler shell and to which

leads the steam pipe, with a proper throttle valve interposed between it and the steam chamber of the boiler. The cross head or steam chest in which the



Side Elevation of Blevney's Engine.

pivotal steam pipe is mounted also has connection with the lubricating supply reservoir.

The engine frames extend backward to encompass the crank shaft, are connected together at their extremities and are also connected to the rear axle, or to the rear axle sprocket casing, by an adjustable stretcher or distance rod of ordinary construction.

The chain drive to the rear axle is vertical and all parts of the engine and transmission device, excepting the rear sprocket, casing and differential, are inclosed above the floor of the carriage body.



### CLUTCH MOVEMENT

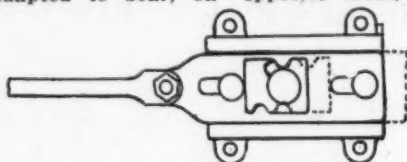
Letters patent No. 674,521, dated May 21, 1901; to Louis A. Schlebecker, Edmund S. Hazeltine and Alexander Selkirk, of Albany, N. Y.

The invention as described comprises a rear axle sprocket clutch of the two-section, sliding variety to connect and disconnect the axle to and from driving relation with the engine, together with an adaptation of the old coiled strap brake, the object being to supply a safety device for the control of the vehicle. The only patentable portion of the device, and the item to whose combination with the clutch the patent claim is limited, is the movement for operating the backward and forward moving link or rod which actuates the clutch.

This device comprises a flat plate to the rear end of which is attached the actuating rod and whose central portion is cut out to form an opening for the reception of the lower end of the vertical hand

## AUTOMOBILE PATENTS.

lever post. Within the slot or opening in the plate there is on each side wall a single tooth or lug against which is adapted to bear, on opposite sides, a



The Invention of Three Men.

tooth projecting from the vertical post.

When the post tooth is engaged with one of the plate teeth and the post is turned in the direction of the plate tooth in engagement, that tooth and the plate will be moved in the direction assumed until the engaging teeth clear each other. Idle rotation of the vertical post for a short distance brings its teeth into engagement with the opposite plate tooth for opposite movement of the plate.

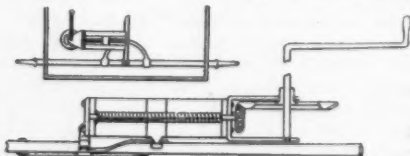


### VARIABLE SPEED DEVICE

Letters patent No. 674,666, dated May 21, 1901; to John C. Blevney, of Newark, N. J.

In this invention Mr. Blevney supplies a speed changing transmission mechanism for hydro-carbon vehicles, to be used in conjunction with an engine which, by means of suitable piston connections, drives an oscillating shaft. The oscillating shaft is provided with a slideway in which is mounted a connecting rod operating cams to which are connected the ends of a looped belt that furnishes a reciprocating motion to lever arms which, in turn, drive a counter shaft through clutches of novel construction.

The drive from counter shaft to rear axle is by chain. The disposition of the connecting rod block in the oscillating slideway is adjustable to vary the speed of the vehicle and change of position of



Hiester's Steering Device.

the sliding block is accomplished by means of a hand wheel with chain and sprocket connections.



### HIESTER'S STEERING GEAR

Letters patent No. 674,409, dated May 21, 1901; to Franklin R. Hiester, of Centertport, Pa.

This is a device for swinging the steering wheels of a vehicle having a rigid front axle mounted on an ordinary fifth wheel or its pivotal equivalent. It comprises a screw mounted in a suitable frame under the floor of the vehicle body and operated by two bevel gears, the horizontal one of which is rotated directly by the hand wheel through the medium of a vertical shaft or post.

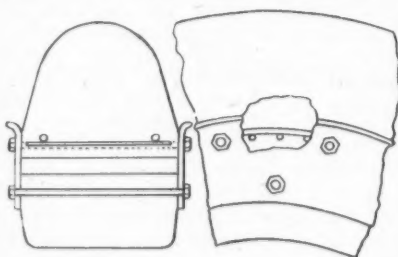
Within the supporting frame the screw carries a non-rotary nut to which is attached a short link connecting at its outer end with the center of a semi-circular strap fastened to the front axle. Movement of the nut on the screw thus swings the front axle in one direction or the other, corresponding to the direction of travel of the nut.



### TIRE IMPROVEMENT

Letters patent No. 674,478, dated May 21, 1901; to Frank A. Seiberling, of Akron, Ohio.

This patent is for an improvement in endless solid rubber tires which are se-



Seiberling's Improved Endless Tire.

cured to the rim by side plates with cross bolts. The improvement comprises a number of short cross wires which are imbedded in the rubber directly under the annular wires and substantially in line with the cross bolts. Their object is to prevent swelling or buckling of the tire under the lateral pressure of the side plates.



### HOW ABOUT "AUTOMEER?"

Harry T. Brockman, secretary of the People's Automobile Mfg. Co., of Cleveland, suggests as an American word by which to designate the man who steers and controls an auto, the original word "autoneer." He, with many others, dislikes the adoption of the French word "chauffeur," and says that when the directors of his company requested each stockholder to submit a term to be used relative to the drivers of its public service vehicles, his "autoneer" was chosen as most desirable.

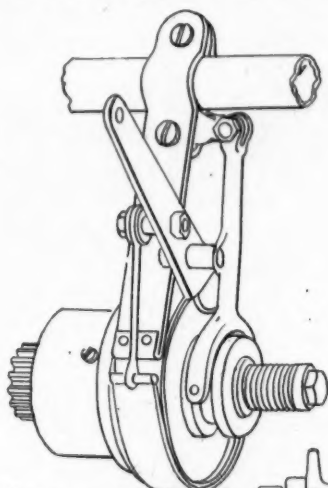


## NOVELTIES AT THE LONDON SHOW

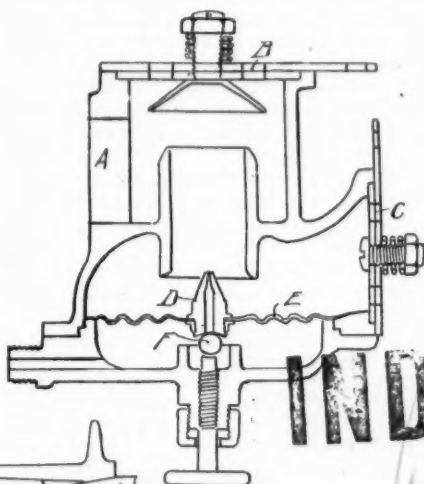
**A**LTHOUGH the exhibit of vehicles and accessories at the recent London automobile show was representative and interesting and of considerable moment in a commercial way, it did not bring out as many distinct novelties mechanically as might have been expected, the most notable point in this connection

sparkling plugs, etc., which elicited attention from the mechanically and technically inclined. The articles described below were among those which attracted most attention.

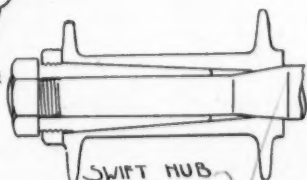
The Dupont two-speed gear for motor cycles (French) is connected to the motor



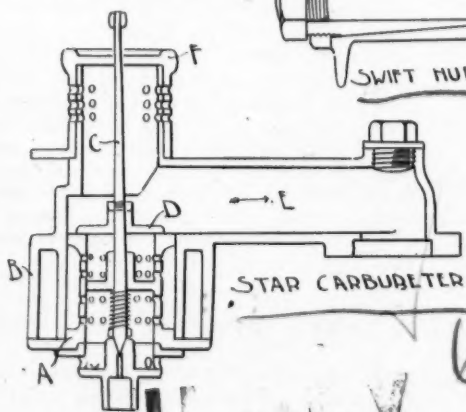
DUPONT TWO SPEED GEAR



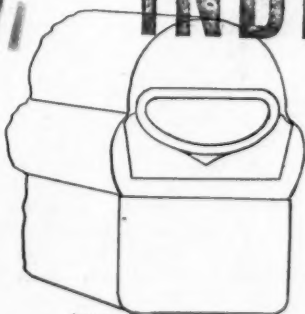
BLAKE CARBURETOR



SWIFT HUB



STAR CARBURETOR



DARE CUSHION TIRE

### MECHANICAL NOVELTIES AT THE RECENT LONDON AUTO SHOW.

being the general advancement in design and building on lines previously established, this being true of both English and French machines.

There were, however, several unique motors and transmission gears and many small parts such as carbureters, coils,

shaft in lieu of the ordinary pinion, whose place relative to the larger spur gear driven by it is taken by the pinion visible in the illustration. A clutch, normally held in driving contact by a spring, and a band brake are operative by the rider with the effects that the motor can

## NOVELTIES AT LONDON SHOW.

be entirely disconnected from the driving pinion, the pinion can be caused to revolve at the same speed as the crank shaft—and the entire gearing—or the pinion may be made to run at a lower speed than the motor.

The driving pinion is mounted on a sleeve over the motor shaft, which extends through the gear casing and has keyed to it within the case a spur gear. Also within the case is a spur gear of another size and mounted on the pinion sleeve. Planet gears, whose bearings are formed by the casing, mesh with the unequal size spur gears, and the case itself is free to revolve about the shaft except when held against rotation by the band brake. If the clutch is engaged the whole gear revolves as one piece, no power being wasted in the travel of idle wheels. When the clutch is thrown out the motor runs free but the brake drum revolves in the reverse direction, while if the drum is then held by the band brake the pinion is caused to run at a lower speed.

The Swift hub for rear wheels (English) presents a simple adaptation of cones for locking purposes. The axle is formed with a conical seat against which fits the short taper bore of the inner end of the hub. A long taper bore toward the outer end of the hub receives a split taper sleeve, while a lock nut on the end of the axle wedges the split sleeve between the hub and the axle. The sleeve can be withdrawn to remove the hub by screwing up a nut on its outer end and which bears against the end of the hub barrel.

In the Star carbureter (English) there is a perforated internal cylinder A enclosed in an exhaust jacketed chamber B, with an annular space between them. The cylinder A is divided into two parts by a partition which also form a support for the sliding stem of a needle valve C. At the lower end of the cylinder A are air holes and a central opening for the entrance of the gasoline, the upper end of this portion being formed as a taper seat for the needle valve. A coil spring underneath the platform of the cylinder A holds the needle valve in its lower and closed position.

Above the partition, the stem C carries a flat valve plate D. The passage

E leads to the inlet valve of the motor and through it air is drawn from beneath the carbureter through the holes in the bottom of the cylinder A, the lower chamber of the cylinder, the annular space around it and the upper chamber. The air lifts the valve plate D and the needle valve, thus allowing gasoline to flow into the lower chamber of the cylinder A where it is taken up by the air. An auxiliary air supply enters the adjustable holes in the regulator cap F at the top of the device and joins the mixture in the passage E.

In the Blake carbureter (English) the lower portion of the apparatus is partitioned by a flexible diaphragm E. This carries a central nozzle D which fits down upon a ball F. A set screw allows the position of the ball F to be adjusted. The ball forms a valve which normally prevents the gasoline supplied through the pipe G from issuing through the nozzle D. Two adjustable air inlets B and C lead into the apparatus, one, B, providing auxiliary air to the motor through the passage A and the other admitting air to be carbureted by passing around the nozzle D and through the vertical and cylindrical portion of the casing. A shield prevents the gasoline from escaping through the air inlet B and it also serves to mix the fresh air with the carbureted charge. The inside of the carbureter is left rough in order to afford a large retaining surface for the liquid gasoline.

When the piston is making its suction stroke the partial vacuum formed in the carbureter causes the diaphragm E to rise and permit some of the gasoline to escape through the nozzle D. The entering air mixes with it and carries it into the working cylinder. At the end of the suction stroke the diaphragm returns to its normal position, and in so doing it pumps a jet of gasoline through the nozzle. This second discharge forms an evaporating film over the walls of the carbureter and is ready to be taken up by the air during the next suction stroke.

The Gare cushion tire (English) has a steel tread, substantially semi-circular in cross section, which is shrunk over a D-shaped tube resting upon a solid rubber cushion. The rubber cushion lies within the steel channel on the wheel felly.



## THE REV. FRANTZ, MANUFACTURER

**C**HERRYVILLE, Pa., May 20.—This place is on the map, although the Pennsylvania & Reading Railroad Co. doesn't know it. A representative of the Age discovered it. You may reach Cherryville, a town of at least 100 people, by taking the Reading turnpike to Allentown, then by another train to a place within two miles of Cherryville, and by walking the remainder of the distance or engaging a livery team. You may also reach it from Reading, via the Lehigh to Slatington, and by driving five miles. This writer went to Allentown, then trolleyed it eighteen miles to Slatington, then chartered a fast livery outfit and bucked the rain and bad roads to Cherryville.

Cherryville may not be known at present, but when the Frantz Automobile Co. gets going the railroad companies may know of the existence of the place and it will give Allentown a run for reputation. The Frantz Automobile Co. is presided over by a preacher, who combines theology and mechanics thoroughly. The Reverend Hiram Frantz is undoubtedly a clever mechanic, and the fact that he presides over two congregations proves his ability as a preacher.

Mr. Frantz is not unknown to the world of invention, as the patent office has granted him six patents, his latest being on a burner for steam automobiles. Inventions of Mr. Frantz seem to run to the practical, for among his patents are one on a motor to run sewing machines, and one on a can opener, which, as he no doubt had in mind when he invented it, will prevent a lot of swearing. He also came to the rescue of the housewife by inventing an article for hanging brooms so that the male members of the family will not fall over them late at night.

Mr. Frantz is still a young man and makes no pretense at mechanical education, confining himself while at college to the study of theology. The love for mechanics seems to have been inherited, for his father has also taken out patents. A glance at the preacher's study showed that he does not allow inventions to creep in there, as the books noticed are the lives of great preachers, history were the lives of great preachers, a Century dictionary, and a few histories.

The representative of this paper arrived at Cherryville (the name of which

is undoubtedly due to the fine row of cherry trees which shade the main street) and found that the only hotel in the hamlet was put out of business by the license commissioners. The corner store proprietor, who speaks fine German, volunteered to take care of the traveler's four-footed auto, and at the same time said that if there were any smarter men than Mr. Frantz, they don't live in Pennsylvania, an opinion held by the entire community, so that if the automobile builder should ever desire to sell stock in his company, it is "dollars to doughnuts" that every member of his congregations would subscribe.

At the preacher's residence, a well-ordered brick house in the midst of a garden, the lady in charge pointed to a store and said: "You will find Mr. Frantz in his workshop." There the man of conglomerate ideas was found doing the work—at least similar work—to that which the father of the Nazarene is said to have done.

Mr. Frantz gave the visitor a cordial greeting. He looks about thirty years old, possibly thirty-five. Persistency shows itself in his make-up and patience is not the least of his virtues. This man would look at a Waterbury watch and would not be satisfied until he knew the length of the mainspring. He is deliberate of speech and looks like a man who could be trusted with the savings of a lifetime.

Mr. Frantz was just placing the finishing touches on a really stylish and well-constructed steam carriage, a picture of which is here presented. The feature of the construction was the new burner invented by Mr. Frantz, which he has tested in all sorts of stormy weather. He declares the wind will not affect it in the least. The engine was built by the Rochester Tool Works, being the production of Superintendent Buckley, of that concern.

Here it is well to remark that this particular part of Pennsylvania is well adapted to severe tests of an automobile. The country is a continuation of abrupt rises and dips, and the soil where the rocks are not in evidence is tenacious red clay. The farmers declare that the Frantz steam carriage flies up and down those grades in York county.

In a four-page illustrated circular Mr.

## EDISON'S IDEA EXPLAINED.

Frantz, who by the way, has only one partner in the concern, has the following to say:

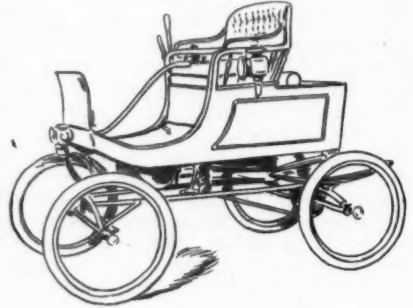
"In presenting to the public this folder we do not wish to dwell on the advantages or disadvantages of different motive powers by which automobiles are at present propelled. It is, however, a well-known fact that carriages propelled by steam or gasoline motors are the most practical for general use, especially for small towns and the rural districts. They are also lightest and most economical."

Then he tells about the endurance of machines in town and country and of the greater power that must be used in vehicles for country use. He says that in the construction of the Frantz carriages durability and practicability are kept constantly in view and the best of material only is used. In this connection it is well to state that the running gear is supplied by the well-known Conrad firm, of Buffalo, and the wheels are shod with Diamond tires.

A regulator shuts off the fire under the boiler at a set pressure, but leaves a small torch burning, and this automatically lights the main burner as soon as the steam goes down.

The Frantz Automobile Co. has just completed its fourth carriage. It will

build gasolines to order, but otherwise, for the present, will confine itself to steam. As the tests have proved satisfactory the company will now establish a larger factory, and it is thought by Mr. Frantz that local demand, for a time, will supply plenty of orders. The price of the



The Frantz Automobile.

carriage is \$700. Mr. Frantz is the owner of several patents on gasoline carriages.

During lunch the "preacher inventor" spoke entertainingly of mechanics and said he came to Cherryville on account of his health, which a too close application to study had impaired.

## EDISONIAN IDEA EXPLAINED TO SCIENTISTS

**N**EW YORK, May 23.—The new Edison battery, concerning which there is great speculation, but of which little is known, continues to agitate the commercial and scientific worlds. Some of the mystery has been removed by a lecture delivered before the American Institute of Electrical Engineers by Dr. A. E. Kennelly. The statement is said to have been authorized by Edison.

It now appears that the inventor has abandoned the copper-cadmium combination described in his English patent, and has adopted iron and nickel as his metals. The former is used in the positive plate and the latter in the negative. The fluid employed is an alkali, but is hydroxide of potash, and not caustic soda, as at first proposed. The amount of liquid used is somewhat smaller than that in the lead battery.

The plates are prepared in the following manner: A light frame, suggestive of a gridiron or a microscopic window sash, is stamped out of sheet steel 24-1000 of an inch thick. It measures about

nine inches high and five inches broad. From this are cut out long, narrow holes, three rows of eight each. The holes are upright, three inches high and half an inch wide. Into these are fitted shallow sheet steel boxes, a tenth of an inch deep, and otherwise corresponding to the size of the hole. And the boxes are full of minute perforations.

Each of the twenty-four boxes of the positive plate inclosed a briquette, composed of finely pulverized iron and graphite in about equal proportions, and compressed into one solid cake. The pockets of the negative plate contain briquettes of pulverized nickel combined with graphite and similarly solidified. Between adjacent plates is inserted a plate of perforated hard rubber and six plates (three pairs) can be so combined that their united thickness is about an inch and a half. The iron and nickel are both obtained in a finely divided state, for the preparation of the briquettes, by a special process not described.

Regarding the capacity of this kind of



## EDISON'S IDEA EXPLAINED.

battery Dr. Kennelly made the following comparison: He said that the lead battery weighed from 124.5 to 186.5 pounds to each horsepower, whereas the Edison battery weighs only 53.3 pounds, thus rendering fully two or three times as much service for the same weight.

Mr. Edison says that for automobiles he would employ only about the same proportion of a full charge before recharging; that is, he would reduce the charge from a starting point of 1.5 volts to 1.1. But he declares that he could run the charge down to a very much lower point, if it were requisite or useful to do so, without damaging the battery. He also insists that a rate of charging might be adopted that is much more rapid than customary, without injuring the battery. And he thinks that all chemical action that would destroy his plates has been averted, so that the battery will practically last forever. Some bulging of the pockets occurs when the battery is charged, but not enough to burst them, and during the tests made thus far no material has been ejected from the briquettes through the perforations. Mr. Edison says that his battery can eventually be made at a price that will make each horsepower of output cost as little as one from the lead battery.

When Dr. Kennelly had finished reading his paper inquiries were addressed to him from a dozen sources, and extended comment was made on the subject. All of this was amiable, but there was a good deal of polite skepticism evinced. Doubts were expressed about the durability of the battery. It was suggested that unforeseen difficulties might arise from the use of graphite and from impurities in the water of his electrolyte. While the hope was expressed that Mr. Edison's dreams might be realized, it was deemed entirely possible that he might be disappointed to some extent.

Yesterday Edison himself was interviewed, and furnished a lot of interesting matter.

"For many years past," he said, "men have been trying to produce a storage battery sufficiently light to be of practical utility. As Dr. Kennelly said in the paper he read on Tuesday night at the meeting in Buffalo of the American Institute of Electrical Engineers, it is well known that the history of the storage cell is essentially that of the lead cell described by Plante in 1860, in which lead peroxide is the depolarizing substance. An enormous amount of labor has been expended upon the improvement of this cell in the hands of experimentalists.

"As a result of that labor the storage battery has at last become a recognized

adjunct to direct-current central stations, but it has limitations which seem to withstand further attempts toward improvement. Of recent years hardly any success has been met with in the direction of reducing its weight for a given energy storage capacity without detriment to endurance, and this weight is the great drawback of the storage battery in electric storage traction, and has been the principal obstacle in its advance in this direction for the last twenty years.

+

"I have been experimenting for the last two years to produce a battery which would be without the defects alluded to, and I think I have succeeded. The present types of storage batteries deteriorate rapidly. In the experiments I have made with the new battery there has been no evident deterioration. Another advantage is, technically speaking, its large storage capacity. Lead batteries weigh from 75 to 100 pounds per horsepower hour. The weight of my battery is only 55 pounds per horsepower hour.

"Again, the old battery takes from four to five hours to charge. The new battery can be charged in half that time, and, moreover, can also be discharged with greater rapidity than can the old batteries. The fault with the lead type is that when you want more power—when you are climbing a hill, for instance, in an automobile—you cannot get it without great deterioration. This trouble I have obviated.

"Careless treatment will not affect my invention. As a general rule, the public does not understand how to care for batteries. In the case of the existing batteries, it requires electrical knowledge to understand them. I realized that a practical battery must be one which the average individual could easily manipulate. All you have to do with the new cell is to fill it with water.

"As regards cost, I believe that after factory facilities now in course of construction have been completed, I will be able to furnish the cells at a price per horsepower not greater than the prevailing price of lead cells. This will really mean a great reduction in expense, because while the lead battery will only carry a vehicle about 30 miles, the new one will go 75 to 100 miles with one charge. Practically, therefore, it means that you will be able to travel the longer distance for the same price as it hitherto cost to go about 30 miles.

"The problem I set myself to solve was how to use electricity for heavy trucking. The deterioration, and particularly the weight of the old batteries, prevented their profitable use for the transportation of merchandise and big loads. With the

## WANTED—AN AUTOMOBILE.

light battery there is a great future for electric trucking. Apart from the lessening of weight, an extremely important factor, it will be possible for a truck to be taken out in the morning and kept at work all day without recharging.

"I have been experimenting for four or five months with this battery on trucks. I have run the trucks over all kinds of roads and up and down heavy grades, with the greatest success and without deterioration of the batteries.

"I might call attention also to the fact that the battery, besides being valuable for river and street traffic, can be utilized with tidal power."

Succinctly expressed, Edison's invention is the use of iron and nickel-oxide plate in a solution of potash, instead of the old-time lead, zinc and sulphuric acid process.

Orange, N. J., May 22.—Edison stated to-day that he had an electric runabout which, with a battery weighing only 240 pounds, had run 75 miles on a single charge. He added that he had just completed the purchase of the old Hayden mill at Glen Ridge, and would take possession of it to-morrow. Here he proposes to establish a factory for the manu-

facture of the batteries. He stated that he would organize a company, to be called the Edison Storage Battery Co., but that he would be the company.



## SAFETY IN AUTOMOBILES

Railways, automobiles and bicycles are safer conveyances than vehicles drawn by horses, according to the statistics just issued by the French government. In a single month 967 accidents occurred for which horses were responsible, and in these 82 persons were killed and 885 injured. There were 145 railway accidents, causing eight deaths and injuries to 137 persons. Thirty-eight automobiles came to grief, and two deaths and 36 injured resulted. Bicycles had 119 bad accidents, six died and 113 were wounded.



## HOW DO YOU LIKE AUTOMAN?

It may not be new. If so, this paper confesses to having missed it. The San Jose Herald refers to automobile owners as "automen." Why isn't it more American and a more common-sense term in every way than "chauffeur" or "automobilist?"

## WANTED—AN AUTOMOBILE

**C**HICAGO'S State street was crowded with spring shoppers, noon-day lunchers and show window devotees. All sorts were mixed in the double stream that poured up and down each sidewalk. On the east side—where the prettiest and daintiest parcels of American beauty passed each other and others, where one ran a chance of being noticed for conspicuousity of dress the most—sauntered a youth with a gold tipped cigarette stuck in the middle of an effeminate smile. With these alone he would have escaped notice, even that of the newsboy who first picked him out as a winner. But on his head was a leather auto cap, on his body a leather auto coat and on his eyes an immense pair of black goggles with mica windows. The goggles made a hit with



the newsboy:

"Aw, gu'an, mister, dis ain't no maskerade."

It was then that State street looked and became interested.

"What brand you advertisin'?" asked a smoker as he passed.

"Must be agoin' to the Pan-American Midway," suggested a portly man.

"Penalty for 'mashing,'" asserted a third.

"Looks like Count Boni," reckoned the next.

Then the wise man, the Sherlock Holmes of the street, struck the facts in the case and with a muscular voice announced:

"Wanted—an automobile!"

With a feeble loosening of his smile the "subject" turned into the Palmer house for a box of cigarettes.





## CURRENT AFFAIRS IN THE CYCLE TRADE



**I** LOILO, P. I., April 11.—The growing pacification of the islands, and especially this island of Panay, has induced a return to normal business conditions, a new and most important branch of which is the bicycle trade. The Filipinos seem to be as easily convinced of the merits of the bicycle as though it had been developed right in their own country and they had, as it were, grown up with it.

Iloilo, these days, resembles many of the United States cities when the bicycle had them in its firmest clutch four or five years ago, for it has literally gone bicycle mad. Two progressive cycle liveries have been established, having in stock for rental chainless and chain cycles, tandems and a triplet, and a visit to either of the stores at eight o'clock in the evening would show that it has been cleared and the only indications of what kind of business was carried on would be found in the sign, the usual bunch of cyclers talking over their rides in front of the store and a few cycles in their wrappings suspended from the ceiling.

To further boom interest in cycling a six-lap banked dirt track has been constructed not far from the center of the city where meets are held at irregular intervals, competitors consisting of about as many Filipinos as whites. The meets are well attended and though no champions have been developed, great enthusiasm is frequently manifested. The sport-loving proclivities of the Filipinos will eventually make bicycle racing a popular pastime in these islands and the erection of several up-to-date tracks is a matter of but a short time.

In Manila many meets have been held on the track there and have been successful both in point of attendance and quality of sport. Many speed merchants more or less well known, formerly, in the United States, are in the islands and have done much to boom the game.

In this city there are numerous stores dealing in cycles and accessories. There are two cycle liveries, El Ciclismo Llongo, Plaza de Alfonso XII, and the Cycle Liv-  
ery, corner of the Plaza and Calle Prog-

reso. In addition the following firms handle cycles in connection with other business: Levy Hermanos, (La Estrella del Norte); Alfonso Levy & Co., Hoskyn & Co., Adolfo Roensch & Co., J. Majol Gafori, Calle Real 41; M. T. Figueras, corner Calle Rosario and Plaza.

Levy Hermanos and Adolfo Roensch & Co. get their bicycles from the main houses in Manila. Another Manila firm which handles a large number of machines is the Pacific Oriental Trading Co., which has a branch establishment here.

There is an excellent market here for accessories, as municipal ordinances require lamps and bells, and the Filipino is very partial to anything that adds to the completeness of his bicycle. Correspondence may be carried on with any of the firms mentioned above in English, as English speaking people are connected with all of them.



### EXPOSITION HURTS SALES

Syracuse, May 27.—Bicycle dealers are not particularly enthusiastic over their sales so far this season. The fact is that they are not as large as was expected. One reason advanced for this is that the people here are saving their money to go to the Pan-American. The cash sales are about the same as in previous years, but the contract sales have fallen off somewhat. Syracuse is a great city to stick to local makes and hardly any other kind of a machine can be seen on the streets.

The American Bicycle Co. has begun the manufacture of motor pacing machines at its factory in this city. This is a new departure for the company. Motors are now being made at the factory to pace Walthour and Fisher, who will race for the A. B. C. The frames of these pacing machines will be finished in a week or so and the tandems will be assembled and put into use at once.

E. C. Stearns has engaged the law firm of Goodelle Bros., Nottingham & Andrews to fight the action brought against him by the American Bicycle Co. The answer to the suit will be a formal denial

## CYCLE TRADE HAPPENINGS.

to the allegations contained in the complaint.

The sale of bicycle tags in Onondaga County has not been as brisk this year as usual. The price will be raised from 50 to 75 cents in the near future.



### THE MACHINISTS' STRIKE

Some trouble has been caused the cycle and automobile industries by the strike of machinists. At Hartford the Pope factory of the American Bicycle Co. closed and the officers called a conference of other manufacturers. There seemed to be no objection to granting the demands of the men except in-so-far as they related to recognition of their union and the reference of disputes to committees in which the union should be represented.

At Westfield 38 men struck, though they expressed themselves as well satisfied with the treatment accorded them by the company. The latter has little to lose while the men have everything, this being the slack season.

At Rochester the men employed by the Rochester Cycle & Automobile Co. walked out. The Riker branch of the Electric Vehicle Co. granted the demands of the men who forthwith addressed to the company a letter of thanks and appreciation of the way they had been treated at all times.

At Toledo the demands were granted by the Snell Cycle Fittings Co., Kirk Mfg. Co., Toledo Tube Co., and the American Bicycle Co. At last reports there were no makers of importance in the cycle line holding out. A manufacturer said that in view of the fact that the season is nearing its close and there will be little demand for labor after a few weeks, it was considered advisable to grant the demand rather than disturb the business this season.



### FOWLER IS OUT OF IT

Frank T. Fowler, now one of Chicago's aldermen and perhaps the most popular who has represented his ward in many years, has at last retired permanently from the cycle trade. Fowler was known, as a cycle maker, in all parts of the country and was not entirely unknown in Europe. He never was a great producer, but was one of the best advertisers the trade ever knew.

Starting with the Moffett Cycle Co. many years ago, he finally became the owner of the business after the death of one of the principal owners. Later he left the concern and established the Trinity Cycle Co. at Worcester, Mass. The company afterward moved to Keene,

N. H., and the factory is now owned by the Steamobile Co. of America.

In late years Fowler has devoted little time to the cycle trade. Other matters claimed his attention and finally, about three months ago, his factory was completely destroyed by fire. Since that time he has made no effort to revive the business. A modest shingle on Wabash avenue now announces that he is engaged in the carriage business.



### STEARNS WILL FIGHT

If E. C. Stearns and H. E. Mastin are engaged in the cycle business in violation of their contract with the American Bicycle Co. they evidently mean to make that company prove it. In the \$200,000 suit brought against them they will make formal denial of the charge and have engaged one of the leading firms of Syracuse attorneys to take care of the case. The answer will be due in about ten days.



### TOO MANY RECEIVERS

An old contention in the cycle trade was revived a few days ago in a court decision. The suit of David McDowell and others, of Chicago, against Nathan D. McCormick, sheriff of Laporte county, Indiana, was disposed of in the United States court this week. It settles a contention between the circuit and superior courts of that county that once reached a point where one of the judges carried a shotgun to see that his orders were enforced. Judge Baker ruled in favor of the defendant and that the costs be recovered from the plaintiffs. The plaintiffs were given forty days in which to file a bill of exceptions.

The suit grew out of the failure of the Allen Mfg. Co., which had a plant for making bicycles at the Indiana state prison. One of the creditors brought suit against the company on October 11, 1897, the creditor claiming that the company owed him \$3,600, and had other debts amounting to \$35,000. It was charged that the Allen company shipped \$7,000 worth of its property to Georgia to defraud creditors, and counter charges of fraud were made.

The creditor who brought the first suit against the company asked that a receiver be appointed, and one was named by the circuit court. Before he took possession of all the company's property application was made by other persons to the superior court for a receiver, and another appointment was made.

Then the receivers began a contention as to which had the right to the property. The second receiver seized a por-

## CYCLE TRADE HAPPENINGS.

tion of the company's property that was inside the prison walls and sold it. Under the ruling of Judge Baker the receiver named by the circuit court is to have possession of the property, since he was named before the superior court made its appointment.



### EXAGGERATED IDEAS OF SPEED

New York, May 27.—"All this talk of traveling 20 and 25 miles an hour on motor bicycles is doing more harm than good," said Will Pitman, the veteran cyclist. "As a matter of fact, very few people have any idea of what 20 miles an hour means. Fifteen miles an hour is as fast as an ordinary individual wants to travel and even at that speed the road has to be an exceptionally good one to travel in safety. Unless a halt is called to this talk of high speeds before motor bicycles become in general use, it won't be long before stringent laws which will seriously affect all motor cyclists will be passed."

Pitman is now associated with Emil Halfelfinger, of Weehawken, N. J., in the production of the motor bicycle which attracted so much attention at the cycle show in this city last January and in which Charles Persons is now interested.



### ALWAYS AFTER BUSINESS

It goes without proving that the majority of the bicycle dealers who have stuck to the business throughout its curious course of trade changes are those who deserve to remain in business and who are a credit to the industry. It does not follow, however, that all of those who have learned how to get and keep trade proceed along the same line. The experience of one dealer is not repeated by another in all features.

In demonstrating the policy of constantly keeping after the people as the surest road to success, W. M. Banschbach, of Princeton, Ill., has for years hammered his business into the minds of folks of his community by the use of all manner of dodgers, stickers, tags and local newspaper advertisements. His dodger advertising has been so persistent that it has proven effective even though not new in its conception.

Mr. Banschbach endeavors to make his advertising matter always catchy, however. A sticker recently distributed and quoted below is an example:

"Husband Wanted.—I am young, fine looking, affectionate, and have \$10,000 in my own right. I want to marry some good man on condition that we settle down for life in Bureau county and have

Banschbach of Princeton sharpen our scissors, knives, lawn mowers, skates, etc., repair our sewing machines, guns, locks, bicycles, lamps, and do all such general repair work, which he only can successfully do."

Another item in the conducting of this dealer's business which is never neglected is the promotion of an annual road race toward whose prize list the Princeton merchants are mainly contributors. To illustrate the manner in which this race is advertised to attract all of the local talent is the following quotation from the announcement of this year's race:

"The slower rider you are and the poorer bicycle you have, the more head start you get."

No entry fee is charged and everything possible is done to make it a big local event which will reflect favorably upon the cycling spirit of the community.



### A GOOD EXAMPLE

T. L. Monson, a bank clerk and cycle dealer in the small town of Port Townsend, Wash., announces that he has sold 41 machines this season and all because of the attractiveness of his advertising. He does not spend a great deal of money but uses his space well and never fails to have something new to say to the reader of the local daily papers. Other dealers who allow their advertising matter to stand day after day and sometimes month after month will do well to take notice and govern themselves accordingly.



### STAEBLER WILL CONTINUE

A report recently reached this paper that Michael Staebler, of Ann Arbor, Mich., had sold out his business. Mr. Staebler writes that the sale he made had no relation to his cycle business. He sold out his stock of liquors and cigars and leased the saloon connected with the American House, which he owns and manages. "We are the oldest dealers here," he writes, "as well as the largest, and have no idea of selling. We are now building a new store and as soon as it is ready shall be ready to take the agency for one or two lines of automobiles."



### A GRATIFYING VOCATION

It is only a few years ago that the small bicycle dealers and repair shops were so thickly lined up along the asphalt streets and good country roads that a rider suffering from any accident had only to go a short distance to seek re-

## CYCLE TRADE HAPPENINGS.

lief, says a Philadelphia writer. The hard times which came upon the trade knocked many of these little fellows out and during the past couple of seasons a disabled rider has had to travel a long distance to get repairs made or to buy any of the hundred and one little sundries needed on a trip and which a man never thinks to take with him.

Now one of these signs of the returning prosperity which I notice is coming to the bicycle business in the vicinity of Philadelphia, and which, I suppose, is now being, or soon will be, noticed in other places, especially near big cities, is that lots of these little repair shops and small dealers are beginning to be noticed again on the asphalt streets and along roads frequented by bicycle riders. There must be a demand for them or they would not come into existence, for the men who start such places are not fools by any means. They may not have much capital, but they are practical, level-headed business men as far as their limit goes, and they are not likely to be found located where there is not a chance for them to do some hustling and pick up a pretty fair living.

I was talking a few days ago with a man who had recently opened a repair shop and small bicycle business in what appeared to me to be a rather unpromising neighborhood. I asked him how things were going, and he cheerily replied: "I have no kick coming; I am getting about all the work I can attend to and occasionally sell a wheel and do considerable business in sundries and supplies." I asked him if he could make a living at the business. His answer was something on the order of philosophy, and was about as follows:

"Well, it all depends on what you call a living. I can get as much out of it as I can working in a machine shop, and I count myself a pretty fair mechanic at that. I am my own boss and I come and go as I please, and that counts for considerable. I can work as long as I please and lay off when I feel like it. Then the variety of work I have to do gives me a chance to use my brains, and, taken altogether, I would rather have a little place of my own than to take the same money from some employer."

The Huntington (Ind.) Mfg. Co., which determined, lately, to cease the manufacture of cycles and has gone into the manufacture of gasoline engines, has been so

successful in that line that it has found it necessary to increase its factory facilities. The manager was in Chicago a few days ago buying machinery.

John J. Duffy, who has a large bicycle store in Waterford, N. Y., has bought out the cycle business of D. Palmateer in that city and has moved the goods to his store. In addition to a large line of bicycles, Mr. Duffy carries a stock of bicycle parts and sundries and has a first class repair shop.

Ray Farrell, a student in the mechanical department of the Ohio state university, has constructed a motor cycle and, believing that he has incorporated therein some new ideas, has filed an application for a patent thereon. The young man is about 20 years of age.

The motor bicycle causes as much excitement on the streets of small towns as the bicycle did many years ago. There was quite a scene when one put in an appearance at Marinette, Wis., a day or two ago. It was owned and operated by L. B. Kelly of the local hotel.

St. Paul, Minn. — The police have served notice on cycle dealers that they must hereafter make daily reports of their purchases of second-hand machines. If they refuse they will be required to take out licenses as second-hand dealers.

The Sectional Pneumatic Tire Co., of Binghamton, N. Y., has been incorporated with a capital of \$50,000. The directors are E. C. Inderlied, B. A. Baumann and F. J. Baumann, all of Binghamton.

The first prize in the Irvington-Milburn road race which will take place on Decoration Day will be a Holley motor bicycle which has been contributed by the manufacturers.

W. F. Crothers & Co., of San Antonio, Tex., want a good line of bicycles listing at from \$25 to \$35. They are willing to pay a fair price but want the best in the market for the money.

Chicopee Falls, Mass.—It is rumored that the A. B. C. factory here will be reopened and that some articles entirely foreign to the company's original business will be manufactured.

Portland, Ore.—The Fred T. Merrill Cycle Co. has been incorporated with a capital stock of \$5,000. The incorporators are Merrill, his wife, and R. L. Ijams.





## BUDGET OF BICYCLE INVENTIONS

**P**ROBABLY the most notable cases in the course of the whole bicycle industry of continued invention along absolutely unprofitable lines are the creation of folding cycle supports and of pneumatic pumps to maintain a constant air pressure in tires. Regardless of the fixed condition of bicycle patterns, the stableness of the sundries market and the many trials of all sorts of contrivances for the two purposes mentioned, the grinding out of supports and automatic pumps continues as though each new inventor of such a device were the first to think of the applicability of the article to a bicycle. There are two plausible reasons for the inability of men to see their approaching finish in such matters. One is ignorance and the other conceit.

### ADJUSTABLE BRAKE LEVER

Letters patent No. 674,745, dated May 21, 1901; to Charles W. Sponsel, of Hartford, Conn.

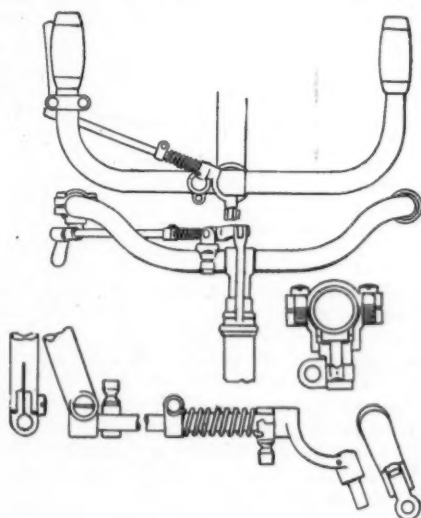
With a worthy object, that of providing a front wheel hand brake lever which may be adapted to a handle bar of almost any curvature, this invention falls short of the mark of commercial excellence in another direction by being rather too complicated and expensive to manufacture.

The brake it operates is an ordinary plunger pattern spoon brake. The brake lever is mounted on a bracket clamped to the handle bar near the stem. The upper half of the clamping bracket is hollowed out to receive a piece which is bored for a vertical plunger whose head or seat is scarfed to fit the upper face of the handle bar tube and whose upper extremity bears against a V groove in a cross pin in the loose piece of the clamp. The outside end of this loose piece is in the form of a pierced head to receive the brake lever.

The end of the brake lever is curved on a quarter-circle arc and is provided with a journal in which is a stud retained by a groove and pin engagement so that it may turn freely in its seat. The outside extremity of this stud has

an eye which engages the two ears on the upper end of the brake plunger or actuating rod.

It is obvious that the brake lever at the points described is capable of both horizontal and vertical movement on its bracket, and that the bracket may thus be mounted on a bar of any curvature near the stem without necessitating the disposition of the brake lever in an awkward manner. It is further noticeable that the universal connection between the



Sponsel's Brake Lever.

end of the brake lever and the plunger rod allows the free operation of the parts even should the brake lever be placed in an oblique plane.

The handle end of the brake rod is secured in a universal bracket identical with that at the handle bar stem and the brake handle itself is connected to the end of the lever rod by means of a double clamp, which by means of a split piece encompassing the serrated end of the lever rod and a cross bolt or screw, which contracts this split piece simultaneously with tightening the split end of the handle, allows the handle to be adjusted to a convenient position relative

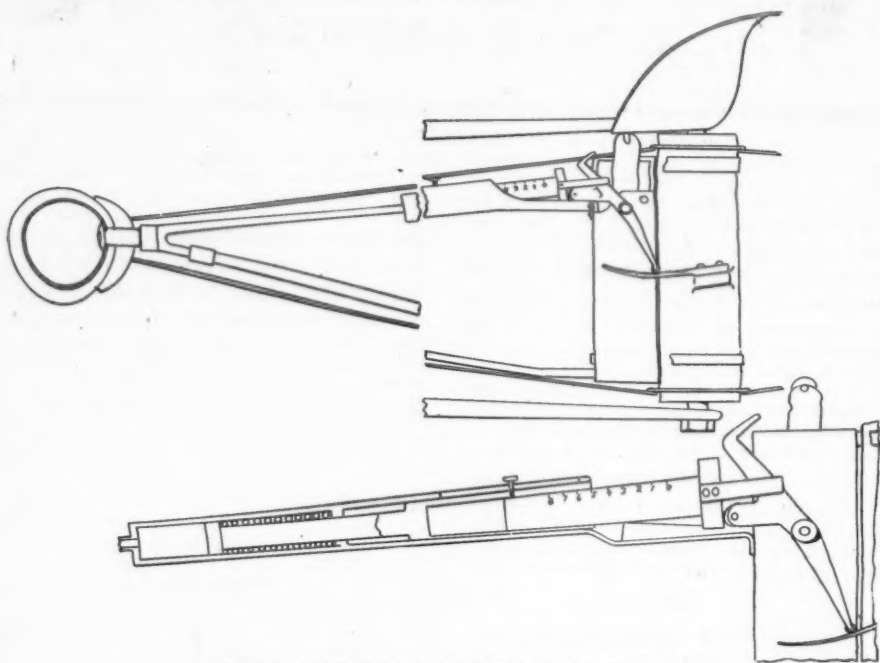
## BICYCLE INVENTIONS.

to the handle bar grip no matter in what position the lever rod may be placed.

A short distance back of the front universal bracket on the lever rod is a small clamp which retains one end of a coil spring, the other extremity of which bears against the universal bracket in the

ous thinking and calculation on the part of its inventor that it is worthy of a little attention on account of the mechanical greatness of its commercial littleness. This Danish production is one of them.

The pump is an ordinary piston pump attached to the hub and with its piston



THE ANDERSON AUTOMATIC PUMP

proper direction to cause it to act as a returning means after application of the brake.

Incidentally, one of the drawing sheets—not here reproduced—of this patent demonstrates the effect of residence upon human nature, the Hartford patent office draftsman having copied a Columbia bicycle in the view showing the brake fixed on a machine.

### AUTOMATIC PUMP

Letters patent No. 674,722, dated May 21, 1901; to Anders C. and Sophus Anderson, of Odense, Denmark.

There have during the last ten years been granted many patents for automatic tire pumps to work when air is needed and to cease working when air is plentiful inside the tire. The reader is doubtless aware that there is a great scarcity of such pumps on the market. Occasionally one happens along which, although of little or no more commercial utility than the many which pass unnoticed through their short career from mind to patent, presents such evidence of vigor-

backed by a spring which tends to force it outward. The outer end of the piston rod bears against a circular camway fixed rigidly to the rear fork end of the frame so that as the pump is carried around by the hub the piston will be given a reciprocating movement due to the travel of the end of the piston rod on the camway. The end of the rod is furnished with a small roller to diminish friction.

The tire is fed from the pump by a tube or pipe leading from its base. The tube contains a valve to prevent return of air to the pump. At the connection of this tube with the tire there is attached another tube leading to a cylinder in which is a piston that is pressed outward from the hub end of the cylinder by a coil spring. The hub end portion of the piston rod is telescopic and adjustable, being furnished with a locking set screw. Its extremity is furnished with a plate against which bears a small roller on a branch from one of the arms of a bent lever pivoted to the pump cylinder. This branch also has a slight shoulder or offset which is adapted to engage the hooked



## BICYCLE INVENTIONS.

end of a flat spring projecting from the end of the regulator cylinder piston.

The extremity of the lever arm bearing the roller branch is bent to the central plane of the pump cylinder and is further bent to provide a prong or stud registering annularly with a transverse hole in the end of the pump piston rod. The other end of the arm of the lever bears against a curved flat spring which tends to press it toward the hub and thus keep the other end out of engagement with the hole in the end of the pump, and the roller of the branched arm against the end of the regulator piston rod.

When the air pressure in the tire exceeds the desired pressure, to withstand which the tension of the regulator spring has been set, the air passing down the regulator tube against the regulator piston will force it toward the hub and cause its rod end to press the bent arm of the lever against the pump piston rod and into the hole in the end of the piston rod as soon as that hole, by the reciprocating movement of the piston, becomes registered with the prong of the lever arm.

When the air pressure in the tire falls below the point of adjustment the spring in the regulator cylinder will force its piston and rod away from the hub and the hooked spring on the end of the piston will catch against the shoulder on the lever arm branch, pulling the lever arm out of engagement with the pump piston and thus allowing the latter to recommence action. As soon as the hook and shoulder engagement is broken, on account of the movement out of alignment of the parts, the curved spring against which the opposite end of the lever presses will continue to move the branched end of the lever outward to position with its roller against the regulator piston rod, ready for action.



### TO PREVENT BROKEN TEETH

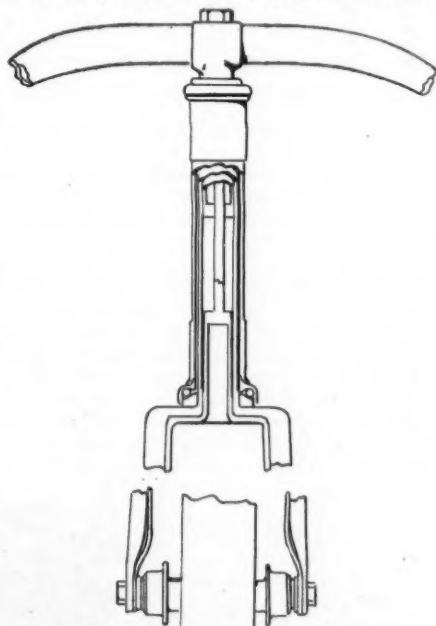
Letters patent No. 674,744, dated May 21, 1901; to James J. Slevin, of New York.

Those who have been parties to broken front fork disasters will be interested in this patent, which is one of the dozen or two which have been granted at about six-month intervals for emergency front forks and front fork braces to prevent the separation in a hurry of parts extremely necessary to the safe carriage of the rider.

The Slevin emergency fork comprises a complete front fork of flat spring steel and provided with a stub stem which fits snugly within the bore of the regular fork stem. The crown lies underneath

the main fork crown and the blades of the emergency fork fit against the inner sides of the blades of the regular fork. The emergency fork blades are not brazed in place, but their lower ends are pierced or slotted to fit over the front axle and are also curved in such manner that when the axle lock nuts are tightened the spring steel blades will be drawn sufficiently tight against the tubular blades to prevent rattling.

The stub stem of the emergency fork is furnished with a closed upper end from which extends upward a square or rectangular rod to engage slidably a correspondingly shaped hole in the lower end of the handle bar stem. This direct connection between the handle bar stem and the emergency fork serves two purposes. It obviates the necessity of brazing the emergency fork to the regular fork, or otherwise securing the two rigidly together, which would defeat the purpose of the invention by rendering the supplementary fork but a reinforcement of the main fork instead of an independent fork not likely to break or become seriously bent at the same time that an accident



Slevin's Emergency Front Fork. occurred to the main fork. It also prevents loss of control of steering should the handle bar clamp become loosened.



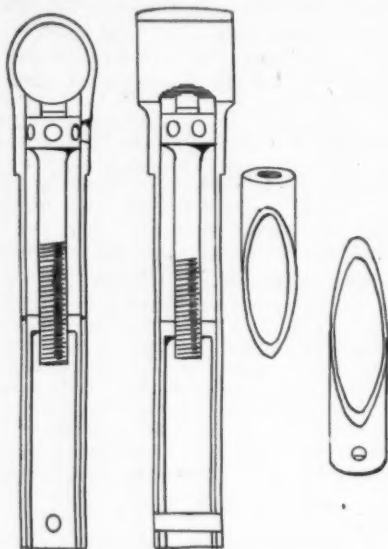
### WORKS BOTH WAYS

Letters patent No. 674,528, dated May 2, 1901; to Murray B. Watson and Abner R. Pierce, of Toronto, Canada.

This patent is for a handle bar stem expander whose rod also locks a single

## BICYCLE INVENTIONS.

piece, reversible and adjustable bar in its tee or head. The upper end of the expander rod is enlarged to fit the bore of the upper portion of the stem and the



Watson and Pierce's Handle Bar Binder.

top of this enlarged end is furnished with a short central stub or lug which engages the central hole of the handle bar locking piece. The locking piece is scarfed and serrated on its upper face to fit the cen-

tral portion of the handle bar and to engage the serrations of the latter.

The enlarged end of the expander rod has several holes in its face and registering vertically with these holes is a transverse slot in the wall of the stem, through which a rod or key may be inserted to rotate the expander rod by working it around from hole to hole. The lower end of the expander rod is threaded and engages the upper of two obliquely wedging expander sections. The lower section is retained in a stationary position in the stem by a transverse pin. Thus when the expander rod is turned to screw the upper section down the two wedges expand the lower, and split, end of the stem, and the same movement of the rod presses the handle bar locking piece or clamp upward, binding the bar securely in the head of the stem.



### MENTIONED BRIEFLY

Letters patent No. 674,451, dated May 21, 1901; to William I. Bunker, of Chicago. This patent is for the cellular structure of the well known Bunker Rubberneck saddle.

Letters patent No. 674,784, dated May 21, 1901; to Ernest Major, of Cookham Dene, England. Folding bicycle support.

Letters patent No. 674,829, dated May 21, 1901; to John Furbow, of Cumberland, Canada. Pump contained within the seat mast.





## CYCLING SPORT AND PASTIME



Major Taylor has defeated Jacquelin, the great French sprinter. It happened Monday, May 27, on the Parc des Princes

track, Paris, where the dusky American went down to defeat so decidedly the week previous, and just as Jacquelin in the first match had whipped the major in two straight heats, so Taylor in the return match showed the Frenchman his flying heels in one-two order.

According to the cable report the two heats run were veritable loafing matches until within 200 meters from home, duplicates of the heats of the previous race. Taylor won the first easily by three and a half lengths and the second by one length.

After the first match, as soon as a return race was granted the major, the principals arranged for a series of three paced heats at distances of 1, 5 and 2 kilometers respectively for the three heats. Then Victor Breyer, Robert Coquelle, of Le Velo, and others directly interested in Taylor's European racing career, urged that the return should be run in exactly the same manner as the first match in order that should Taylor win it would reflect creditably upon him in comparison with Jacquelin's winning of the first match. The cable announcement that the first heat was for 1,333 meters, the second for 1,000 meters and the unnecessary third scheduled for 2,000 meters, and that the two heats ridden were loafing and jockeying matches until the sprint, is almost positive evidence that Le Velo's suggestion in the matter had prevailed. It may thus be safely asserted that Taylor beat Jacquelin at the same game at which he was beaten by the Frenchman.

Contrasting notably to Taylor's manly statement after the first match that he had no excuse to offer for being beaten and that Jacquelin had shown himself to be faster, is the report that after Monday's race Jacquelin claimed to have been suffering from the result of sickness of the day before the race. Had Jacquelin

### TAYLOR TURNS THE TABLES

Easily Out-Sprints Jacquelin in Return Match

Monday—Wins Two Straight Heats

ed as an excuse private to be offered the information instead of holding should have said so the race then he been sick before

after a good beating.

Taylor was beaten squarely and in one of the greatest match races ever ridden. Let him have the credit of having as squarely won in another such race.

Taylor's winning of Monday's match leaves the championship proposition in the condition of a "horse apiece" and makes the likelihood of Jacquelin's appearance in this country more certain.

The final match between these two should prove an event even more attractive than the first match. It would be a fitting supplement to the race program arranged by the N. C. A. for the meeting at the Pan-American exposition in August.



### GOOD STORY OF FIRST RACE

One of the best and most interesting of the many reports received by mail of the great Jacquelin-Taylor match May 16, whose cabled result was given last week in this paper, is the following letter from the former manager of a Brussels track, who has followed the game closely for years and who was exceedingly interested in the contest. It is as follows:

Paris, May 17.—As promised in my last letter, I will give a detailed account of our auto trip from Brussels to Paris, and of the Taylor-Jacquelin match. There were 18 in the party, which included a number of manufacturers from Antwerp and Brussels. We had five automobiles—two Darracqs, one Panhard, one De Dion, and one of Belgian make.

We started at 4 o'clock in the morning, and as the weather was favorable in every respect and the roads in good condition the trip was a pleasant and fast one, Paris being reached in eight hours. A few punctures on the way, a few chickens run over, and an angry farmer running back to his house to get a gun, and shooting at the tires of our vehicles—

## SPORT AND PASTIME.

these were the few incidents which occurred.

Of course, as usual, the customs officials were slow and kept us showing papers and asking questions for fully half an hour, but one of us finally tried giving each of the three men a five-franc piece, and just as soon as the money was presented we were able to continue our trip. We had a little lunch on the way, having taken a half-dozen cold chickens, some nice tongue, and, of course, about a dozen bottles of wine. The ladies (there were four) enjoyed the cold lunch better than we did, as we were all excited over the big event which was going to take place in a few hours.

Although we arrived hungry in Paris, we did not care to go to a restaurant, but drove directly to the Parc des Princes, reaching there about half-past one. It took us nearly fifteen minutes to obtain admittance, as there was already an overwhelming crowd. Fifteen minutes later the different gates were closed to the public, and Manager Des Grange told us that had we come at that moment we would not have been admitted. Some of the most fashionable people of Paris were outside asking for admission, offering twice and three times the price of the ordinary admission, and often more, but the word was "No more," as there was absolutely no vacant space.

The different events which took place before the match did not interest the crowd, and it was only when Major Taylor came out and indulged in a little warm-up that the attention of the attendance was turned toward the tape. Soon after the Frenchman made his appearance, and, after going around the track a few times, came up and shook hands with his American competitor.

The crowd was too excited to applaud the appearance of the two rivals, and when the bell rang, announcing that the first heat was about to be run, everybody stood up, and one would have thought that only a single man was the spectator—the silence was sublime.

At the pistol shot Jacquelin started first, but before five yards had been covered he swung out, trying to make the major take the lead. Of course the latter would not accept this kind offer, and a balancing contest followed, neither man wanting to go to the front. Finally Jacquelin fell off his machine, and had his trainer not been right next to him he would probably have been hurt.

Another start was given, and this time the Frenchman went ahead without hesitation and went into the turn along the outside of the track. Then Jacquelin suddenly stopped, hoping the major would pass, but the latter was on his

guard and almost stood still, forcing the French rider to again take the lead. The middle of the last turn was thus reached, when suddenly Jacquelin, with his wonderful and unique jump, went ahead in an instant and gained a wheel. The American, however, followed without any great loss, and in two or three pedal strokes was on even terms with his competitor, and even gained a half-wheel.

Next Jacquelin went ahead and succeeded in passing the colored man and taking, in his turn, a half wheel. This sort of thing continued for the next 150 yards, each man passing the other in turn. It was the most sensational race that ever happened, and may be called the most perfect speed event in the history of cycle racing.

I, an old-timer in the game, cannot remember of any such great finish, and I think that very few will contest my opinion when I say that although Zimmerman was a very fast rider and remains as an exception among riders, he never either made or had to make the effort that both these two champions made yesterday. It was more than thrilling, and for a Frenchman, who is so quickly excited, it took half his breath, for he could neither yell nor speak, and I assure you that after this heat was run some of the people surrounding me could not utter a single word for several moments.

Jacquelin finally succeeded in gaining a half wheel in the last 10 yards and passed the tape a winner by this distance. He covered the last 100 meters, or 109 yards, in the locomotive time of 5 seconds flat, which is over a second faster than the best previous competition record.

After the men had dismounted and the crowd had had time to recuperate from the excitement, a turmoil which has no precedent followed. Man and woman waved hat and handkerchief, lifted canes and umbrellas, and roared louder and with more enthusiasm than they could if they wanted to give a reception to one of their generals after the winning of a big battle. But this was only the start, as it was not generally thought that the race was already won by the French favorite, and when the men came out to ride the second heat they were this time long and loudly applauded.

A large part of the audience was in favor of the American, and, by the way, I will state that the American colony was well represented in the assemblage. There were also several ministers and many of the pretty French actresses who have now taken more than ever to the cycle races.

At the pistol shot of the second heat both men started the old game, neither



## SPORT AND PASTIME.

wanting to take the lead. However, the major this time changed his mind, and after a few seconds went to the front and led at a fast clip and until the bell was rung, with Jacquelin still in second position. The major put on more speed, trying to prevent the Frenchman from making his jump. But, as in the first heat, and although the speed was fast, Jacquelin again succeeded in jumping away. This time, however, the major was quicker in responding to the effort, and, as if maddened by his first failure, he bent over his machine, and like the wind caught Jacquelin, passed him, and in entering the home stretch had two lengths advantage.

It now seemed that the race was run and the American a sure winner. However, to the surprise of every one, not excluding his most intimate friends and those knowing his ability best, Jacquelin gave a new proof of his incomparable speed, and in less than a hundred yards succeeded in catching the flying negro and passing him, this time taking two lengths and winning easily, almost sitting up. In crossing the tape the Frenchman acted in a manner which should certainly be condemned and which will lose him many friends. He turned around and made a villainous grimace at his unlucky rival.

Just as soon as the result was no more in doubt the large audience broke into a delirious wave of enthusiasm. There are no words to express it, but one might have thought that some strong electric battery was being pressed on the feet and hands of these thousands of people, who yelled in every possible manner. Some of them acted as though crazy. In almost no time the "populars" had invaded the track and the aristocrats followed, and elegantly dressed barons in silk tiles elbowed common workingmen in dirty clothes, all trying to reach their idol. The first ones snapped him off his machine, carried him around the track, singing the "Marseillaise," and, forgetting themselves, began to yell "Down with Taylor!"

During all this time the American had returned to his training cabin, where he was sprawled on a sofa, crying loud and yelling, "Finish! finish!—no more champion, me!" Of course every one around him tried to console him, but without success. When finally some one said that he might ask for a return match, the major at first did not want to listen, but finally said, "All right, all right. If he will do so he will show himself a true sportsman." Thus ended this great day of May 16, which will remain, for all those who had the fortune to view the

match, one of the most memorable in the history of the sport we love.

To give an opinion of this event I will state that there is very little to be said except that Jacquelin was in the pink of condition and Taylor may claim that, the weather being quite cold and he having a much smaller gear than Jacquelin, the result was thus influenced a little. However, I think the Frenchman is the better in a pure speed contest.

We will stay here a few days, and should a return match be run we will probably return from Brussels, as we have not the good fortune every day to witness an event between such great riders.

The admission prices were as follows: 40 cents, 80 cents, \$1.20, \$2, and \$16.80 for boxes seating six persons. However, I know of many who paid as much as \$20 for a seat on the inside of the track, where there were several hundred people.

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### ABOUT THE MATCH

Fourteen European riders pronounced themselves as favorable to Jacquelin as a probable winner of this first match. Among them Ellegaard and Van den Born were the only notable ones. On the other hand, 21 thought Major Taylor would win. Among them were Bourillon, Grogna, Ferrari, Bouhours, Lesna, Stephanie, Gougoltz and Morin.

Of twelve daily papers which expressed an opinion, six favored the Frenchman and a like number the American.

It is reported that two prominent board of trade men of Paris bet 30,000 francs, or \$6,000, on the match, to be given to some charity association.

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### NELSON DEFEATS DUER

At Buffalo, May 23, Johnny Nelson opened his eastern campaign for the season by defeating Ray Duer, the local amateur, in a 15-mile motor paced match. Nelson led practically all the way and won by nearly a mile in 24:05. The first mile was ridden in 1:51, the first 5 in 8:09, and 10 miles in 16:05, making the second 5 miles the fastest of the race.

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### SHERIFF LIKES SUNDAY RACES

The sheriff of Essex county, N. J., who was recently instructed by the court to investigate Sunday racing at Vallsburg because of the complaints of some of the church people, reported to the judge that he thought it would be a shame to stop Sunday races, as the crowds were orderly, and that the races drew people who

## SPORT AND PASTIME.

might go to worse places if stopped from witnessing the sport. The judge asked the sheriff about the giving of prizes, to which the sheriff answered that prizes were given in the public schools, and he could see no harm in giving prizes at the Vailsburg races. The justice expressed no opinion on the sheriff's report, saying that he would carefully weigh it before expressing one. The prosecutor agreed with the sheriff in the report made to the judge.



### NEWHOUSE IS BOLD

Al Newhouse has dared everybody who rides. He has issued a challenge to any bicycle rider in America to a match of mile heats, best two in three, the first to be ridden American style (meaning, probably, with single pace), the second in French style and the third, if necessary, according to the dictates of a tossed coin. He stands back of his offer with an offer of a good side bet.



### ELKES IN FORM

Harry Elkes, the Iver Johnson standard bearer in middle distance contests, Thursday last showed that he is rounding into form by defeating Watson Coleman at Washington, D. C. The match was for 20 miles and Elkes won handily in 31:23. His times for 5 and 15 miles were particularly fast and made new record marks.



### THE GREAT WESTERN TOUR

For the last three weeks arrangements for the coming tour of western cyclists to the Pan-American exposition have been proceeding slowly but surely. Cycle Age has been in communication with a number of prominent people in Canada, through whose territory the tourists will pass, and has received such encouragement as to be assured that they will be well taken care of in the Dominion.

The committee in charge of the event will have a meeting this week and will probably decide to abandon the boat ride from Hamilton to the Falls. This will be done on the advice of practically all the cyclists in that section of the country who declare that to cut out that part of the trip would be to miss the best part of the journey.

"The road from Hamilton to Niagara Falls," says G. S. Percy, chairman of the tours and runs committee of the Canadian Wheelmen's Association, "is through the fruit belt of Canada and one of the finest in the Dominion."

H. B. Howson, secretary and treasurer of the same organization, says this: "The

run from Hamilton to the Falls is the best part of the whole trip. We call it the fruit run. It is the garden of Canada. With the exception of a small strip at Jordan, near St. Catharines, the road is all and runs through beautiful country. No member of your party should miss this part of the run."

And then comes John G. Gauld, of Hamilton, who is familiar with every foot of the road and has taken great interest in the tour, with this information and advice:

"I am sure that the ride from here to the Falls would be one of the most interesting parts of the tour. The roads are good. There are a few deep ravines but these can be walked. Leaving Hamilton the road winds fairly close to the base of the mountain and passes through the fruit garden of Canada. There are fine residences all through the Grimsby section and the sight of the fruit farms, to those who do not live in their immediate vicinity, is always one of great interest."

One of the most enthusiastic correspondents on the subject of the trip is W. A. Woodstock Karn. "I am always pleased," he says, "to be of service to a bicycle rider and especially to a party touring our country. It has been my good fortune to be associated with every large party that ever came this way from the United States. I will arrange to have some of the boys meet you coming in and to escort you to Brantford."

Mr. Karn then offers some advice about places at which it will be found desirable to stop to "breathe," and winds up his letter by extending to the whole party the freedom of the Woodstock Amateur Athletic Association, an invitation of which, of course, the management of the tour will take advantage. The schedule provides for a stop at Woodstock for the night.

Detroit is not yet ready to announce what arrangements are being made there for the entertainment of the party. State Senator Earle has the matter in hand, however, and promises early information.

Applications for information have been received from about 50 riders up to date, aside from those who are being taken care of by the officers of Chicago clubs. The Milwaukee men expect to bring a delegation of at least a dozen.



### LEAGUE'S TWENTY-FIRST BIRTHDAY

Friday of this week, May 31, will be the twenty-first anniversary of the organization of the League of American Wheelmen at Newport, R. I.

## SPORT AND PASTIME.

Twenty survivors of Charter day only are now on the membership roll. Two of them, C. Kirk Monroe, of Cocoanut Grove, Fla., and another allowed their membership to lapse, but renewed it later.

The following are the charter veterans: Col. Albert A. Pope, Edward W. Pope, A. F. Webster, William B. Everett and E. C. Hodges, of Boston; Elliott Mason, P. F. Bruner, Arthur L. Atkins, Will R. Fitman, and Charles S. McCulloch, of New York; H. B. Hart and H. A. Blakeson, of Philadelphia; A. S. Parsons, of Lexington, Mass.; George H. Day, of Hartford, Conn.; Sam T. Clark, of Baltimore; W. S. Slocum, of Newtonville, Mass.; E. K. Hill, of Worcester, Mass.; H. L. Willoughby, of Newport, R. I.; Joseph Pennell, of London, England, and C. Kirk Monroe, of Cocoanut Grove, Fla.

The original officers were Charles E. Pratt, president; T. K. Longstreet, vice-president; Albert S. Parsons, corresponding secretary; J. Frank Burrill, recording secretary; Hugh L. Willoughby, treasurer, and C. K. Monroe, commander.

The original president and vice-president are now dead.

### GOLDEN WHEEL RACE

Berlin, May 13.—For the fourth time the annual Golden Wheel race was run in Berlin yesterday on the Friedenau track. Before an audience of over 10,000 people Bouhours, the Frenchman, won the event, covering the 100 kilometers in the fast time of 1 hour 44 minutes and 54 2-5 seconds. The starters in the race were, besides the Frenchman, Dickentmann, Robel, Tom Linton, Heiny and Krause.

The Dutchman took the lead and held it for over 25 kilometers, going at a record clip and breaking all German records on the way. The first 25 kilometers were covered in 25 minutes 25 2-5 seconds. Soon after the speed began to tell on Dickentmann and he lost his pace, while Bouhours went to the front and passed the 50-kilometer mark in 49 minutes 29 2-5 seconds. Then his tandem met with an accident and he lost a lap, which enabled Dickentmann to again take the lead, and at the end of the first hour he had covered 60 kilometers 450 meters.

After another 5 kilometers the Frenchman again came to the front, just at the moment when the Dutchman's tandem fell. The latter escaped a tumble, but his pacemakers were badly hurt, one of them breaking his collar bone. From then on the Frenchman was no more in danger, although Robel began to ride better and succeeded in passing all the

others, finally landing a good second, with Tom Linton third.

A scratch race enabled all of the German cracks to come together. Although defeated in his heat by a surprise, Arend won the final in great shape from Seidl and Heller. Huber had been defeated by the latter in his trial heat. The tandem race was easily won by Huber and Seidl from Arend and Heering by six lengths.

The former winners of the Golden Wheel race are as follows:

1898—Bouhours; 100 kilometers in 2:08:11 2-5, Chase second.

1899—Walters; 100 kilometers in 2:02:07 3-5, Bouhours second.

1900—E. Taylor; in one hour rode 55 kilometers 725 meters, Walters second, Bouhours third.

### A SUPRISE MATCH

The Jacquelin-Ellegaard-Grogna match, May 12, was awaited anxiously by a large number of the Frenchman's admirers, who were yet undecided as to his condition, and an enormous crowd gathered at the Prince track. Before the race Jacquelin was offered at 5 to 1 for his match with Taylor, but after the second heat of this event he turned out to be a favorite and at the close of the day could not be had at even money.

In the first heat of the match Ellegaard took the lead until the bell, when Grogna jumped to the front. Jacquelin remained in last position and instead of trying to jump he waited until the home stretch, when both his competitors were going at their fastest speed, and he thus did not have the smallest chance of winning. The Dane crossed the tape a winner by a full length, while Jacquelin succeeded in defeating the Belgian by a bare quarter of a wheel.

However, this heat was only a maneuver on the part of the Frenchman, for in the second he again remained in third position until after the bell, when all three started to sprint at once. In the last turn Jacquelin passed, going around the Dane with great ease and entering the home stretch with a length, which he increased to fully three when he passed the tape. Grogna was again third, as usual when he is in company with a dangerous competitor. In such a case he always loses courage and thinks himself defeated before the start.

In the third heat, which may count as a record for loafing, the three riders rode a balancing contest, with the crowd hissing and whistling. Just after the bell the Dane started at good speed, Grogna following. Both tried to prevent Jacquelin's final jump. In this they succeeded, for Jacquelin with all possible

## SPORT AND PASTIME.

effort could not run away, but in the home stretch, when all three men were on even terms, the Frenchman showed his superior speed by passing ahead without great difficulty, and reached the tape a winner by nearly four lengths.

After dismounting the Dane shook hands with the Frenchman and yelled aloud, "You will eat that American up next Thursday," and the crowd, hearing it, responded with a loud "Yes, yes."

The open race was won by Bourette, while the tandem race went to Dangla and Guignard.

### GERMANS COMPETE

The crack German sprinters had a friendly tilt among themselves at the opening meet at Leipzig, Germany, May 16. The principal scratch event was won by Huber from Arend, with Heller third and Seidl last of the six competitors in the final. Huber also captured the mile handicap from scratch and with Seidl as team mate won on a tandem the 5-kilometer multiplet lap race.

### MILLER UNFORTUNATE

Charley Miller made his debut in Europe in a 50-kilometer paced race at Toulouse, May 12. After the first 5 kilometers the American fell, hurting his left side in such a manner as to be unable to continue. The race was captured by Simar in 1:01.

### NONE AT VAILSBURG

Racing at the Vallesburg track, Newark, N. J., last Sunday was abandoned on account of rain.

The Atlanta Journal will endeavor to stimulate interest in cycling in that city

by promoting a 16-mile road race on July 4. The dealers of the city have been asked to co-operate and have agreed to take hold of the project and endeavor to make the event such a success as shall create a lot of interest and thus boom business.

The Hartford Wheel Club, the pioneer of the state of Connecticut and which promoted the famous Hartford race meets of by-gone days, is as active, in some respects, as ever. It has lately made a contract for the remodeling of its club rooms and holds weekly runs which are well attended.

The Associated Cycling Clubs of Chicago is determined to carry on the work of road and street improvement and to that end is asking for the support of other organizations. The Chicago Athletic Association has lately joined the old body and appointed two delegates.

The county commissioners of Minneapolis have decided to spend \$500 to improve the Great Northern roadbed to Minnetonka for the use of cyclists. In the matter of cycle paths Minneapolis is the most progressive city in the United States.

Dr. Willard R. Starks, content with a more lowly vehicle than some of his professional brethren, has become the first owner of a motor bicycle in Chatham, N. Y., and says he intends to use it for hurry-up calls.

The McKeesport Cyclers, of Pittsburg, which occupies the entire second floor of the new Hartman block, is considered one of the best institutions of the kind in the state. It has now over 300 members.

Springfield, Ill.—Notice has been given by the police that the lamp law, which has been a dead letter for a long time, will be rigidly enforced in future.





## THE NEXT CUSHION FRAME MOVE

**C**USHION frames are now standard factors in the bicycle trade and their development has reached out over a wide scope of usefulness. Not only have chain bicycles of many makes been produced in cushion frame models, but now most of the builders of chainless bicycles have at the top of their price list patterns with the cushion frame. The influence of the cushion frame upon the bicycle trade has become permanent. So with the cushion frame as a stable feature of standard bicycles the natural question concerning it is: "Has it reached the limit? If not, what next?"

It is a fairly safe assertion that the limit has not yet been reached, and, further, that the next move is the cushion frame motor bicycle.

The motor bicycle is decidedly a youngster, but having been born and being bred in an industry with its eye teeth cut and with considerable knowledge of all sorts at its immediate command for combination with working tools and machines in the production of new things, there is every reason to suspect that the swaddling clothes period will be brief—briefer than were the motor bicycle the product of a more poorly learned industry.

It is easy to conceive that if a cushion frame is desirable and acceptable in a bicycle, it is greatly more so in a motor bicycle in which the vibrations of a hydro-carbon motor as well as those due to the irregularities of the road surface must be compensated to afford the maximum of comfort to the rider. Hence the cushion frame motor bicycle is due to appear before long.

In just what form it will come and in just what manner the cushion elements of its construction will be made, are more difficult matters to settle consistently. The disposition of the motor shaft

in most of the motor bicycles now built is not such that the common cushion rear frame hinged at the hanger can be conveniently applied, owing to the change of driving belt or chain tension that would result from the vertical movement of the rear end of the frame. If the hinge point of the rear frame is substantially at the crank center of the motor, as well as of the pedal shaft, then the present type is adaptable without change.

Another consideration in cushioning a motor bicycle frame is that concerning the compensation of motor vibration irrespective of the compensation of ground vibration. Must the frame be cushioned on the rear wheel and the motor also cushioned on the frame? This is to be answered in two ways. Yes, if practical and to be accomplished simply and economically of weight and expense. No, if it compels complication and expense sufficient to overbalance the utility.

If the motor cannot be cushioned satisfactorily irrespective of the ground cushion of the entire machine there still exists the desirability of the main cushion to compensate for road vibrations, to rid the rider of which is just as much a worthy object in motor bicycle as in pedal driven bicycle construction. We may look, then, for the cushion frame motor bicycle in some form or other.

★  
Apropos of the general subject of motor bicycles, there is one other development in them to expect. The skirts of women riders must be accounted for sooner or later, as the motor bicycle grows in popularity, and unless they are accounted for the makers of motorgo machines will be responsible for another knickerbocker campaign, for when motor bicycles become numerous there will be plenty of women who will catch the fever in a form which will not brook restraint.

## RETAIL TRADE MISCELLANY

Hawes & Premo, cycle dealers, of Webster, R. I., have left that place.

Jno. Schroeder has retired from the firm of F. C. Nuzman & Co., Circleville, Kan. The company does an extensive

business in agriculture implements and bicycles.

W. S. Young, of McPherson, Kan., found that his other interests took so much of his time that he has sold his

## RETAIL TRADE MISCELLANY

cycle business to Temple Brothers, who will carry it on as before but with greater energy.

Parmelee Bros., hardware and bicycle dealers of Burton, O., have sold out their business.

Bay City, Mich.—Thorp & Carey have lately opened a cycle repair shop and sale room.

Henry B. Bauer is said to be the only dealer in Poughkeepsie, N. Y. He handles the Pierce.

Nicholson & Fay, bicycle and hardware dealers, of Belmont, N. Y., have dissolved partnership.

Crandon, Wis.—J. B. Hyatt has purchased a lot for the erection of a cycle store and repair shop.

J. W. Yearian of Salmon City, Idaho, has gone out of business. He handled bicycles and hardware.

A petition in bankruptcy has been entered by Julius M. Erichson, hardware and bicycle dealer, Slater, Ia.

C. G. LaFontaine has leased a store at Sherburne, N. Y., where he will conduct a cycle and automobile business.

Warren, O.—F. C. Williams, a local jeweler, has rented the Clark building and will open a cycle establishment.

Musselman Bros. & Co., prominent bicycle dealers of Wichita, Kan., advertise that they will discontinue their business.

Paw Paw, Ill.—Arthur Merrill has purchased all the cycle parts in town and will conduct the only repair shop here.

Hills & Tubbs, bicycle dealers, of Pomona, Cal., have dissolved their partnership. Mr. Hills will continue the business.

Arthur Griggs, of New Haven, Conn., one of the best known bicycle dealers in the east has filed a petition in bankruptcy.

Grand Forks, N. D.—The cycle business of W. J. McGowan has been sold to W. H. Olds, of Crookston, who will operate it as before.

In the annual spring floral parade and business men's carnival at Owensboro, Ky., last week the bicycle firm of W. A. Guenther & Sons figured prominently.

D. B. Edmondson and T. E. Elliott, of Ada, O., have purchased the repair shop formerly conducted by Levi Durringer at Bellefontaine and will add a cycle livery.

Fire destroyed the cycle and buggy shop of Sidenbender & Bennett, at Delphi,

Ind., one night last week. The origin of the fire is unknown. The loss is \$1,500, partly covered by insurance. Nine buggies and a number of bicycles and tools were burned.

Joseph L. Ochiltree, who has been in the cycle and carriage trade at Philadelphia, died there on Friday last. He was formerly secretary to Col. James C. McComb.

Aurora, Ill.—H. C. Althoff has bought property at the corner of LaSalle and Fox streets and will erect a two story building, occupying the store for his bicycle business.

Delphi, Ind.—The store of Sidenbender & Bennett has been burned, with a loss of \$1,500, partly covered by insurance. A large number of cycles and many tools were destroyed.

The Elk Cycle Co., of Anderson, Ind., has decided to go out of business and has rented a room where its stock of machines will be sold off at cheap prices as soon as possible.

The Fountain Cycle Co., of Delta, Col., has rented a more pretentious building than it has occupied in the past and will move into it at once with a view to the enlargement of its business.

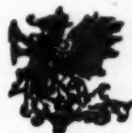
Last week the store of Himes & Rosenwinkel, of Fort Wayne, dealers in cycles, was entered during the night and the safe was robbed of nearly \$900. The strange part of the matter is that the combination of the safe showed no sign of having been tampered with, the robbery having evidently been committed by some one familiar with it.

The following new cycle establishments and repair shops have lately been added to the list: C. H. Gaylord, Bay City, Mich.; Warren Wilcox, Dunkirk, N. Y.; Harvey Hanson, Menominee, Wis.; Louis Meddick and Paul Jacobs, Morningside, Mass.; Ed. Henderson, Lake Mills, Ia.; Fred Magoon, Brockton, Mass.; Leon Buker, Skowhegan, Me.; Elwin Young, Montpelier, Vt.

The following changes of ownership of firms in the cycle trade were reported during the past week: Jolly, McDougall & Smith to McDougall & Smith, Tecumseh, Neb.; Shields, Painter & Sloan to Greensburg Hardware & Supply Co., Greensburg, Pa.; Fred King & Co. to M. M. King, New Albany, Miss.; Meister & Seely to T. G. Seely, Sterling, Ill.; Mathers & Cowles to C. E. Cowles & Son, Douglas, Neb.; Edgar Boren to R. E. Boren, Dallas, Tex.; F. H. Stearns to Cramer Bros., Steamboat Rock, Ia.



## INFORMATION FOR BUYERS AND BUILDERS



**T**HE Buffalo Gasoline Motor Co. is jubilant these days and Manager Snyder and Superintendent Charles J. Annesley are confident that their motor, for vehicles, boats and stationary purposes, is going to have a much increased sale. The Buffalo Gasoline & Motor Co. has a splendidly fitted factory and the number of motors coming through and being shipped daily furnishes evidence that the company is doing business.

The company took on Saturday a large order for gears and other parts from a Brooklyn man, who will assemble a number of motor carriages for the city of churches. The Buffalo motor is made from 4 to 12 horsepower.

The Buffalo Gasoline Motor Co. will also build complete automobiles, into which it will put its four-cylinder, 6 or 7 horsepower, non-vibrating, shifting spark, vertical gasoline motor, which occupies a space 12 by 20 inches by 19 inches high. The company makes a special claim to doing away with a carburetor and uses in its place a mixing valve. The company is building launches and making a drive on gearless transmissions.



### IVER JOHNSON SPECIALTY

The Iver Johnson's Arms & Cycle Works, of Fitchburg, Mass., are calling attention to the fact that it is Major Taylor's particular mission abroad to exhibit, at the proper time and place, the drop forged rear fork end feature of the Iver Johnson which he rides. It is further reported that Harry Elkes writes from Baltimore that this same feature is on the Iver Johnson he rides and asserts that he is confident every middle distance rider in America will become entirely familiar with it before the season is over.



### SHELBY AFTER MOTOR BUSINESS

In connection with the enlargement of its selling facilities, the Shelby Steel Tube Co. has established a department for handling bicycle and automobile busi-

ness which is rapidly assuming large proportions. This department will be called the vehicle and specialty department of the Shelby Steel Tube Co., and will be under the personal supervision of Edward K. Orr, who for the last four years has been western manager of the company, with offices in Chicago. The vehicle and specialty department has already established offices at 258 Broadway, New York, for the handling of eastern business, and in the Rookery at Chicago for handling trade in the west. Both of these offices are operated in connection with the general business of the company, but on account of the large and rapidly increasing automobile and bicycle business it was found necessary to organize a special department to give this trade the attention it merits.

In connection with this department, specialties of many different kinds will be manufactured. The company is experimenting with tubular wheels, having already placed on the market a large line of specialties for automobile and bicycle purposes. The Shelby company has recently installed large nickel-plating and enameling facilities and has increased its capacity to such an extent that the output of any specialty of which it may take up the manufacture, will be almost unlimited.

The new department is at present at work upon a descriptive catalogue of the articles it will produce and it will be ready for distribution at an early date.

Running gears made from seamless steel tubing are rapidly gaining favor with manufacturers of all kinds of vehicles. Seamless steel tubing was first used in vehicle construction by the manufacturers of track sulkies; later it was adopted by manufacturers of light runabouts, and with the advent of the automobile its use became general. At present all progressive manufacturers of vehicles are finding uses for seamless steel tubing not before contemplated. Many manufacturers, however, fail to appreciate or understand what seamless steel tubing is at present. They confuse it with ordinary pipe, whereas the great-

## INFORMATION FOR BUYERS.

est difference exists between the high quality seamless steel tubing made by the Shelby company and the ordinary pipe manufactured by lap-weld pipe makers.

Seamless steel tubing is made from the best quality of open hearth steel. It machines readily and cuts free and clean. Shelby furnishes special tubes, soft annealed, suitable for bending or forming into shapes and owing to the very smooth finish and very slight variation in diameter and gauge, the cold drawn steel tube can often be used to advantage and with economy in place of an article ordinarily machined from solid stock. Owing to the great strength and superiority of the tubing, a much lighter vehicle can be made by its use than by the ordinary method of construction. For vehicle construction, seamless steel tubing possesses the maximum of strength with the minimum of weight.

The Shelby automobile boiler flue was recently placed on the market and is rapidly gaining in popularity with manufacturers of steam vehicles. To produce an article adapted to this purpose necessitated additional facilities and expensive equipment. The company, however, has been able to manufacture an automobile flue which it believes to be superior to anything else yet put on the market, and notwithstanding its increased cost, is furnishing it in competition with the highest grade of copper flues.

### INVISIBLE BICYCLE PUMP

"Have you a pump with you?" queried the cyclist in distress of a passing rider. An old situation this, and yet what proportion of the bicycle riders of the present carry pumps with them continually? Probably a small percentage. The truth is that the American rider does not choose to tie or in any way fasten to the frame of his machine a long foot pump such as is seen on the mounts of many English riders, and also few wheelmen bear gracefully the task of pumping up a tire with a small hand pump. Hence, in spite of the often strenuous necessity for a pump, but comparatively few are carried by riders.

Several attempts have been made to produce practical pumps enclosed in the seat mast and thus rendered practically invisible and at the same time effective, but almost none of the numerous articles of this kind which have been patented have been placed on the market, presumably because they in most instances failed in some manner to meet expectations.

Smith & Krausz, 728 Bergen avenue, Jersey City, N. J., have introduced such a pump for which practicability in all

features is claimed. It is contained within the seat mast and, unlike others which have been brought out, does not necessitate the use of a saddle having an open center, a special seat post being supplied which permits the saddle to be readily tipped backward to allow the withdrawal of the handle of the pump piston. A rubber discharge tube which when not in use is carried underneath the saddle, is attached to a connection placed in the side of the seat mast a short distance above the hanger and may be extended to the tire valve of either wheel.

The device can be fitted to any frame, either of flush or outside joint construction. When applying the pump the dealer or repairer has only to take out the seat post, slip the pump and new post into position and drill a small hole in the seat mast for the reception of the discharge tube connection. The price is moderate and the makers offer good terms to agents.

### KEATING MOTOR BICYCLES

The accompanying illustration presents the Keating motor bicycle, concerning whose construction and doings much more or less definite information has been printed in the trade papers of late and illustration of which has been previously postponed at the request of the Keating Wheel & Automobile Co., of Middletown, Conn., on account of pending foreign patents.

The motor crank box is built into the frame and occupies a position chosen as desirable by several motor bicycle builders—directly back of the pedal crank shaft hanger or frame bottom bracket. The motor transmission, instead of being direct to the rear wheel by chain or belt, is to the pedal shaft through a reducing pair of spur gears. From the pedal crank shaft the rear wheel is driven by a chain and two moderate size sprockets.

On the pedal crank shaft is a free wheel clutch of special design and which serves to accomplish driving connection between pedals and motor shaft, free-wheeling, motor disconnection and application of the spoon brake operating upon the rear tire. When the rider pedals forward the clutch catches to lock the pedal crank shaft, sprocket and gear shaft together for starting the motor and machine. When the rider holds his feet stationary after the motor has been started the pedal cranks are free from the shaft, but the motor shaft is geared rigidly with the shaft and sprocket to drive the machine. A slight backward movement of the pedals unlocks the motor driving gear connection and the machine runs free from



## INFORMATION FOR BUYERS.

the motor. Further backward pressure on the pedals sets the spoon brake.

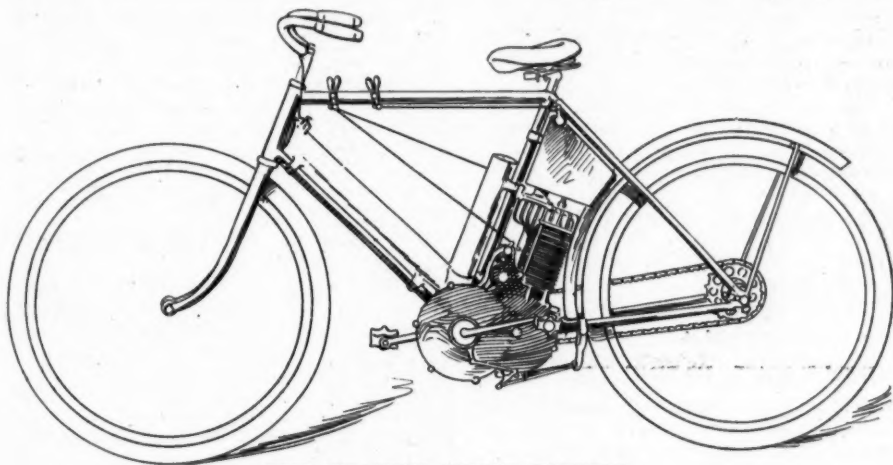
The cam shaft is located in the upper portion of the casing and is so placed as to bring the sparking cam and the exhaust valve near the lateral center of the engine, a position which tends to prevent damage and also permits a narrow tread—5½ inches.

The carbureter is of the surface type, without float, and is placed directly under the seat post cluster. The mixture is led in a pipe from the air and gasoline valves at the top of the carbureter down on the inside to the bottom, through which it

tery casing which is removable and may be used as a safety switch. The splash method of lubrication is employed for oiling all parts of the motor and gearing, an opening being provided for partly filling the engine casing with oil.

The carbureter has a capacity of two quarts, which amount of gasoline is sufficient for 35 to 40 miles, according to the company. If required, an auxiliary tank, with a capacity of two gallons, can be placed above the mud guard.

In case of any accident which might render the motor inoperative the clutch on the pedal crank shaft can be thrown



THE KEATING MOTOR BICYCLE.

passes directly into the top of the cylinder head.

One of the most unique features of the machine is the hollow rear wheel mud guard which serves as muffler. The exhaust gases pass from the side of the cylinder head into the front end of the mud guard, close to the motor, and finally out at the rear end. Riveted inside the guard are numerous sheet steel partitions, having small holes of graduated sizes, which retard the gases and reduce considerably the noise of the exhaust.

The jump spark method of ignition is employed, the current being supplied by four ordinary dry cells, carried in an aluminum case clamped to the lower reach of the frame, and by a coil carried in a similar case on the seat mast.

In operation, the air and mixture valves located at the top of the carbureter are controlled by the two small levers on the upper reach nearest the seat; the two other levers control the time of ignition and the compression relief cock in the cylinder head. The electric switch for starting or stopping is operated by rotating the left hand grip; a screw plug is also placed at the upper end of the bat-

tery casing which is removable and may be used as a safety switch. The splash method of lubrication is employed for oiling all parts of the motor and gearing, an opening being provided for partly filling the engine casing with oil.

The motor has a cylinder, 2 7-16 by 2¾ inches, and runs up to 2,400 revolutions, corresponding to a speed of 27 miles per hour. The bicycle weighs complete 79 pounds.

### DE DION DENIES A RUMOR

Brooklyn, N. Y., May 20. To the Editor:—It has recently come to our attention that certain of our competitors are circulating rumors to the effect that we are not having as ready sale of De Dion Motorettes as we could wish and that our large factory buildings are practically empty.

We wish to give this rumor unconditional denial. Such yarns can be circulated only by the unprincipled whose methods should receive unreserved condemnation by the whole automobile press.

It gives us pleasure to state that the sale of Motorettes has far exceeded our most sanguine expectations. About 100

## INFORMATION FOR BUYERS.

have been already delivered, and we are now turning out completed Motorettes at the rate of two a day, while we shall soon be enabled to do even better, owing to a further increase of our facilities, now in contemplation. One agent alone has sold 35, of which 20 are in the hands of his customers.

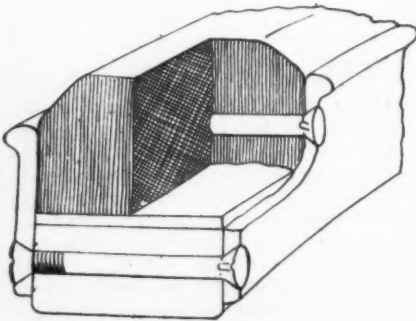
With the exception of the motors, which are imported from France, and the rough bodies, the entire vehicles are built by our own men in our own works. The business is at present so active that the works are in operation day and night. The plant includes machine shops, blacksmith and forge departments, a carpenter shop, brazing room, nickel plating department and enameling, painting and upholstering departments, all of which are in full daily operation.

Owing to the fact that so many Motorettes are in the hands of satisfied customers, and to our extensive advertising, the business is increasing rapidly. Full investigation of our methods is not only granted but solicited, and all are invited to visit our shops. We know that we have the best gasoline automobile in the world and we are proud of it.—Yours truly, De Dion-Bouton Motorette Co.

### INDURATED FABRIC TIRES

Indurated fabric tires are expected to soon cut a noticeable caper or two in the automobile trade. A section of an indurated fabric tire, as manufactured by the introducing concern, the Auto-Dynamic Co., 140 West Thirty-ninth street, New York, is presented in the accompanying illustration.

The tire is made from special fabric having the fibers and threads disposed diagonally so that only the ends of the threads are exposed at the surface. The



The Indurated Fabric Tire.

whole laminated structure is thus built up with edgewise disposed layers, consolidated with a peculiar rubber compound under hydraulic pressure and vul-

canized. The automobile tires are endless and are fastened to the rim by detachable side plates secured by cross bolts.

It is asserted that their method of manufacture prevents moisture from penetrating below the surface and that sufficient sand and grit from the road is retained on the tread to prevent skidding on slimy pavements. The non-slipping quality, in fact, is one of the chief claims made for the tire. Another advantage of the laminated structure is strength, and it is further claimed that it is impossible to strip or tear the tires from the rim under the most severe traction service. It is obvious, additionally, that chipping out of the body portion of the tire is obviated by the canvas layers.

Low cost of construction, partly due to minimizing the amount of rubber used, and low selling price are attractive features in that they tend to reduce the cost of the tires per vehicle-mile of service, an important consideration in the operation of heavy vehicles.

The company, unlike some concerns which have foisted new tires on the market, does not claim everything in sight in the way of resiliency, but, instead, points out that vehicle builders and users aim to secure easy riding qualities with correctly proportioned springs and require that a solid tire accomplish only a certain proportion of the anti-vibratory result. It does claim, however, that for service the indurated fabric tire is a leader and that it can be left on the wheel until worn out, no repairs being necessary.

The tires are adapted to all forms of motor vehicles from light runabouts to heavy trucks and are made in diameters ranging from 32 to 42 inches and in width from 2 to 8 inches. For ordinary automobiles up to 3,000 pounds in weight the company recommends a pattern  $1\frac{1}{4}$  inches thick and from 2 to 4 inches wide. For heavier work the tire should be 2 inches thick and from 4 to 8 inches wide.

### DIAMOND BRANCH AT DETROIT

The Diamond Rubber Co. has already done so much in the automobile field through the excellence of its tires that its name is already almost as well known in that industry as in the cycle trade. It intends to hold the advantage it has gained by such attention to detail as will facilitate the transaction of business to the utmost.

To that end it has secured the premises recently occupied by H. M. Snyder, at 310 Woodward avenue, Detroit, and will there operate a branch house. There it will conduct the sale of pneumatic cycle,

## INFORMATION FOR BUYERS.

carriage and automobile tires, while for the latter two classes of vehicles solid tires will be supplied also. The branch will be in charge of W. M. Perrett, who has been with the company at Akron for the last two years and whose general experience in the business extends over the last fifteen years. Mr. Snyder, who formerly occupied the premises now taken by the company, will take to the road and will cover the Michigan territory.

### “ONE OF THE FINEST”

In speaking of its Model 10 automobile headlight, Gray & Davis, of Amesbury, Mass., say that it is one of the finest and then ask pardon for using that over-worked phrase by adding that any way if it does not suit the purchaser he is requested to return it to them. One of the distinctive features of this lamp is its ball or handle, which, when folded down, is retained in such a manner that it will not rattle. The usefulness of a ball on a good, strong headlight is apparent to almost any automobilist who, of a dark night, has searched for hidden trouble in his machine.

The lining of the combustion chamber is not connected to the burner but is separated from it all around by a full half-inch, a precaution against oil dripping onto the highly polished surface and disfiguring it. The oil tank is composed of the entire bottom portion of the lamp and is attached by a brass screw so that it is secure and yet easily removable. It is packed with cotton and contains fuel for about eighteen hours' burning. The wick is regulated from the outside, an important point on a windy night. The same pattern is also made with an acetylene gas generator and burner.

### DAIMLER BOOKLET

The green covered catalogue recently issued by the Daimler Mfg. Co., 939 Steinway avenue, Long Island City, N. Y., is an interesting booklet, thoroughly illustrated and containing descriptions of the various Daimler marine and automobile motors. Attention is also given to the running gear of and the completed Daimler hydro-carbon delivery wagon, the only pattern of automobile at present manufactured by the company.

### BROTHER FRANK'S CARRIAGE

J. Frank Duryea, designer and constructor for the Duryea Motor Wagon Co., of Springfield, Mass., to whose latest design reference was made two weeks ago, sends the accompanying illustration.

“We have a number completed and others in process,” he writes. “The carriage shown weighs less than 800 pounds with all supplies for a 150 mile run. The 4 gal-



J. Frank Duryea's Latest.

lons of water carried does not boil hence we seldom need additional water. The machine does fast work on hills because of its light weight. It has three speeds, operated by one lever, and the motor can be started from the seat with ease.”

### HOLLEY BUILDS A FACTORY

Bradford, Pa., is adding another industry, which will possibly, in time, become as large as the largest in the oil city. The Holley Motor Co., manufacturer of the Holley motor bicycle, is breaking ground for an improved and well equipped factory.

As is well known, the company is having frames built at Syracuse by the Olive Wheel Co., while the motors are made at Bradford under the supervision of the young inventor, George Holley, about the youngest man in the business, for he is only just twenty-two. His father is just completing what will be one of the largest hotels in western Pennsylvania.

A representative of this journal visited the Holleys at their home lately. Holley Jr. gave an exhibition on his bicycle and his statement that the machine would make twenty miles an hour up the 15 per cent grade was borne out by actual test. The way that bicycle flew up grade was a caution. It is equipped with  $2\frac{1}{2}$  horsepower motor and is said to travel 30 miles an hour, so that it is no wonder it has caused excitement in the town. A visit to the works, which are at present of a temporary character, being part of the factory of the Dish company, showed

## INFORMATION FOR BUYERS.

Mr. Holley supervising a dozen men turning out motor parts.

The company consists of five people, three, at least, of them being wealthy, and no question exists as to the financial standing of the concern. Mr. Holley declares that all that is required now is to turn out machines in numbers, for he is satisfied they will stand up and give satisfaction.

Don M. Smith, the successful young manufacturer and selling agent of the Olive bicycle, at Syracuse, will be the business manager of the Holley company, and it may be that he will forsake Syracuse for Bradford, but that question has not been settled. Mr. Smith is financially interested in the concern.

The engine is covered by patents and is the sole work of young Holley. This young man is very youthful in appearance, but has all the marks of intelligence, perseverance and staying qualities, and this trait has been the feature of his life. Holley has spent five years in an experimental way, but it is only during the last year that he has brought his experiments to perfection.

### MORGAN BICYCLE MOTORS

The Morgan Motor Co., 55 Furman street, Brooklyn, after considerable experimenting, has now on the market complete motor outfits ready for attachment to bicycles. The motors are arranged for mounting on the upper side of the lower reach and are furnished with either belt and pulley or chain and sprocket driving parts. When the belt outfit is supplied an adjustable idler pulley for tightening, and to be attached to the seat mast, is included.

The gasoline tank is arranged to be suspended from the upper reach directly in front of the seat mast, the sparking coil directly back of the seat mast under the rear stays and the battery casing upon the rear stays back of the seat post cluster. The outfit includes instructions for mounting to upon the machine.

The company will also supply castings for or finished motors separately, these being rated at 1 horsepower when run at 1,000 revolutions per minute.

### NEW MILWAUKEE AUTO

Milwaukee now has another automobile manufacturer, the J. L. Kung Machinery Co., Market and Biddle streets. The company represents the gasoline branch of the industry with single and double seated rigs, a specialty being made of runabouts. The motor is of home construction, is rated at  $4\frac{1}{2}$  horsepower and

drives through a transmission gear furnishing three forward speeds and a reverse. The control of this speed change gear is by a single lever. Particular stress is laid by the company upon the excellence of its muffler, which is said to be a peculiarly effective silencer. The sparking device is another feature for which original and effective construction is claimed. Illustration and further description of the Kung vehicles will appear in this paper later. With an enlarged producing capacity in the near future the company expects to turn out a vehicle a day.

### STEARNS STEAM WAGONS

The exhibit of the Stearns Steam Carriage Co., of Syracuse, at the Pan-American consists of three carriages, a runabout, a trap, and a light delivery wagon.

The runabout is a trim, substantial vehicle, of ample proportions and intended for use on all kinds of roads. The trap is built on similar lines, but with longer body and larger boiler capacity. It seats four persons, but can be used for two by folding down the back seat and folding up the foot board, thus giving it the appearance of a runabout. The delivery wagon has the same power capacity as the trap, with the seat well forward, giving ample space for storage of parcels. A carriage top on the runabout and a shay or canopy top on the trap can be added if desired.

Among the more salient features of the carriages is the compound engine, which is entirely enclosed, and may be quickly changed to single acting. All the opera-



The Stearns Steam Delivery Wagon.

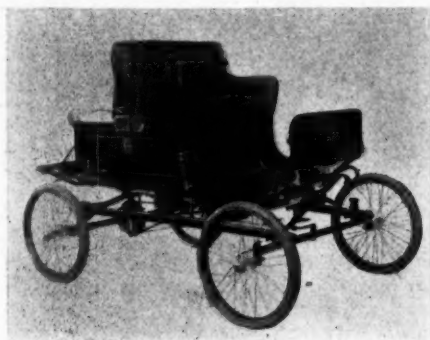
tions involved in starting, stopping, reversing and controlling the speed can be effected by the operation of a single lever. The differential gear in the rear is also enclosed, and is fitted with a double acting brake of novel design. A regular



## INFORMATION FOR BUYERS.

tubular boiler is used, with steel shell and copper tubes. The gasoline generator can be lighted quickly without the use of a torch.

The steel tube running gear common to most steam vehicles, has been abandoned.



The Stearns Steam Carriage.

done, and the axles, of 2-inch tube, well braced, are hung upon side bars of second growth hickory. The steering device comprises an original side lever which can be folded out of the way of the operator at pleasure. The automatic devices consist of a water regulator, air pump, fire regulator and a device intended to prevent burning the boiler. While the machine is practically automatic, it is at the same time independently under control of the operator from his seat, in case the automatic devices for any reason do not work.

The Stearns company takes pride in the statement that it manufactures all of its own parts, which are especially designed for its carriages. The prices for the runabout, trap and delivery wagon are respectively \$800, \$1,000 and \$1,200.

### ORIENT TRICYCLES OLD AND NEW

The Waltham Mfg. Co., of Waltham, Mass., will shortly place on the market its new gasoline propelled tricycle. This vehicle will be fitted with  $3\frac{1}{4}$ -horsepower motor, a special clutch to permit starting the motor with the tricycle at rest, large gasoline tanks, and the company's new vaporizer, and will sell for \$450.

In order to close out the stock of tricycles on hand and make room for the new ones, the company has made a decided cut in prices. The  $2\frac{1}{4}$ -horsepower De Dion motor, listed at \$450, will sell for \$310, the  $2\frac{1}{4}$ -horsepower Aster for \$325, and the  $2\frac{1}{4}$ -horsepower Aster for \$350. The price of the attachment for transforming the tricycle to a quad has been reduced from \$150 to \$125. This reduction in prices will enable agents who

have heretofore hesitated about investing in motor tricycles to purchase at exceedingly low prices. The Waltham company states that these prices will only prevail as long as the machines last, and that the new tricycle will sell at the old price of \$450.

A new record was recently made on an Orient bicycle between Philadelphia and Atlantic City, a distance of 60 miles. A Philadelphia man, on one of the regular machines, covered the distance in 1 hour and 53 minutes, and returned in 1 hour and 44 minutes. The roads were not in the best of condition owing to rain, and it is expected this record will be broken in the near future by the same rider.

### BALDWIN TROUBLES ARE OVER

The new broom is certainly sweeping well in the Baldwin Automobile Co.'s factory at Connelville, Pa. As is well known this company has gone through the throes of reorganization. It has come out of it with flying colors.

The Baldwin company was one of the first concerns to start in business and through no fault of those who put the money into it, goods were not turned out as rapidly as they expected. Now all this has been changed, for a new man is at the throttle, and, judging from his appearance and action, he will drive the manufacturing engine through, and from a commercial standpoint the company will boom from this time on.

The new general manager is no novice in commercial affairs. He knows quite a little about automobiles, as he was the agent, at Cleveland, for one of the leading steam companies. Frank Lamkin is the name of the new manager, and besides managing the Baldwin automobile factory, he also runs an extensive printing plant at Norwalk, O.

The first thing the new manager did was to discard all the preparations that had cost the company a large sum of money, and start to make a steam carriage after the accepted patterns. In this he has been successful, judging from the severe tests that Receiver and President George J. Humbert gave the carriage the morning this paper's representative arrived at the factory.

The company's plant is a large one and splendidly adapted to the purpose. It consists of four separate buildings of the latest construction, where everything can be made that goes into an automobile, except the tires. The plant is located about two miles out of Connelville, on an electric road. Railroad switches run into the yard and the loading places are level

## ELECTRIC VEHICLE CO. AT PAN-AMERICAN.

with the bottom of the freight cars so that, from a shipping standpoint, the company has fine facilities.

The topography around the factory is well calculated to provide the most severe tests that an automobile can be put to, the alleged roads being little better than roughly plowed mountain fields with plenty of rocks, deep mud and ridges. Mr. Humbert lives on the side of the mountain and ran his latest automobile up to his residence, a grade of at least 20 per cent, but the machine took it without a tremor. A track, some quarter of a mile in circumference, furnishes speed testing facilities so that every machine the Baldwin people send out will show well on road and track—and such roads!

Judging from the appearance of the factory immediate shipments of the new series of up-to-date Baldwins will be made, as 50 were being got ready to meet orders already in hand. It is Mr. Lamkins' wish that the factory shall turn out at least five complete automobiles a day.

The company is well backed now that things are in good manufacturing shape, and there will be no hesitation on the part of the backers to furnish all the money needed. George J. Humbert, whose report as receiver was commended by the

courts, formerly owned the tin plate plant near the automobile factory, but he sold out to the tin plate combine and was retained by that institution at \$1,000 a month salary. This he gave up in order to give attention to his interests in the automobile company. It will be strange if Messrs. Lamkin and Humbert do not place the Baldwin company, in a year from now, in line with the best of them.

The company's new catalogue is ready "and buyers can rest assured," said Mr. Humbert, "that they will get a first-class automobile at as low a price as any good one on the market."



The Loomis Automobile Co., of Westfield, Mass., has moved into its new factory, which gives over eight times the area of the old one. By a considerable addition of machinery and working force it now expects to avoid night work which has been going on since last September. The company will show two new models shortly.

Agencies for the Morgan motors and accessories have been placed with P. J. Dasey & Co., 160 Washington street, Chicago, and Charles E. Miller, Reade street, New York.

## ELECTRIC VEHICLE CO. AT PAN-AMERICAN

**T**HE exhibit of the Electric Vehicle Co. at the Pan-American Exposition will be the largest in the number of vehicles and most complete in the varied assortment of styles of any single display made at any exposition in this country or abroad. In all there will be 31 automobiles of the Columbia and Riker types in the company's enclosure in the transportation building, and several others in practical demonstration about the exposition grounds. Of the Columbia vehicles on exhibition there will be the following:

One mark 3, lot 4 phaeton; one mark 7, lot 4 tricycle carrier; one mark 13, lot 5 gasoline runabout; one mark 11, lot 4 wagonette; one mark 11, lot 4 six-passenger omnibus; one mark 11, lot 3 runabout, with wooden wheels; one mark 12, lot 3 runabout, with buggy top and wire wheels; one mark 12, lot 3 Victoria, with wire wheels; one mark 12, lot 3 Victoria with canopy top and wooden wheels; one mark 16, extension front brougham; one mark 19 surrey; one mark 19 cabriolet; one mark 19 rear boot Victoria; one mark 19 delivery wagon.

The Riker list will include the following:

One piano box runabout; one Victoria; one phaeton; one spider phaeton; one mail phaeton; one Victoria de luxe; one delivery wagon; one two-ton truck; one Wilkesbarre bus; one theater bus; one public hansom; one railway cab; one straight-front brougham; one demicoach; one brake and one gasoline voiturette.

Both the Columbia and the Riker type are familiar sights in all large cities. Many of them are in use in Canada and Mexico, and more than 100 have been shipped to England, France and Germany. In Buffalo, by the operation of the New York Electric Vehicle Transportation Co., the merits of Columbia vehicles are well known. A Columbia delivery wagon is under contract to carry the mail between the Buffalo postoffice and the Pan-American grounds and several vehicles of a smaller type will be used to distribute mail about the exposition grounds.

Another Columbia delivery wagon has recently been purchased by the govern-

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any fluid or liquid, not authorized or made by us, in any pneumatic tire, infringes our patent rights and is liable to serious trouble and expensive litigation. This applies to any private individual, repair man, or dealer, whether he injects a liquid into his own tires, into the tires of others or makes or sells such liquid for others to use or sell. It applies to any free flowing liquid, semi-liquid or substance capable of being converted into a liquid, no matter

Any person or concern selling or using | what such substance or liquid is made of.

**BUFFALO SPECIALTY MFG. CO.**

**Buffalo, N. Y.**

## ELECTRIC VEHICLE CO. AT PAN-AMERICAN.

ment for the distribution of books from the congressional library at Washington. Five active fields of service are included within the range of usefulness of the Columbia and Riker vehicles on exhibition, namely: Ordinary pleasure riding about city and suburbs; long distance touring and cross country work; transportation by means of conveyances with large seating capacity; delivery service for department stores of large cities and similar concerns and heavy trucking work.

The pleasure vehicles to be exhibited include runabouts, phaetons, Victorias, surreys and cabriolets. Vehicles of this type are equipped with new long distance batteries, which have a running capacity on one charge, of 40 miles. This endurance opens a much greater field of service for the electric vehicle.

The Columbia and Riker runabouts and phaetons are equally serviceable for pleasure and light business purposes. Although of light running and easy riding qualities, they are of the most substantial construction. The runabouts can be run at speeds ranging from eight to 14 miles per hour. Tops can be furnished when desired and the purchaser has the choice of either wooden or wire wheels. Four phaetons will be on exhibition, three showing various styles of the Riker type and one of the Columbia model. Besides being in demand for park and other forms of pleasure riding, this variety of automobile is especially adapted for physicians, in the professional service of whom a number of them are used. Rumble seats for attendant are provided, which can be removed at will. Hoods and tops are furnished, which form adequate protection against inclement weather. The speeds of these phaetons are 12, 15 and 18 miles per hour.

The Victorias include three of the plain type and two of the more luxurious style, which attracted much favorable attention at recent shows in New York, Washington, Philadelphia and Chicago. The graceful lines and easy running qualities, as well as its handsome and refined finish, appeal especially to women. They are particularly serviceable to elderly persons and invalids. The long wheel base and easy spring suspension are noteworthy features.

One of the Columbian exhibits shows the Victoria with an English canopy top. Speeds are given at the rate of 12, 15 and 18 miles per hour for the various styles. Of the more luxurious type are the rear boot Victoria of the Columbia pattern and the Victoria de luxe of the Riker type. The upholstery, the appointment and the general finish of these latter are of the most elegant kind. The upper panels in the seats are fitted in light yellow

French cane work, producing a remarkably smart effect. The body suspension of these Victorias is independent of that of the battery boots, insuring the greatest ease and comfort in riding. A rumble in the rear provides room for the operator and attendant.

Equipped with new batteries, all the styles of vehicles can be driven 40 miles on one charge. The rear boot Victoria and the Victoria de luxe can obtain a speed of 12 miles per hour. This type has become popular in recent years in this country for calling and general driving. Dark and light green are the prevailing colors in its finish and there is room for a third passenger besides the driver and attendant. The capacity on one charge of the battery is 40 miles and the speed at 12 miles per hour can be obtained. The surrey, another type of Columbia, combines the light running qualities of the Victoria and runabout and the additional speeding capacity of a larger type. Beside its usefulness for general pleasure riding, it has proved popular as a golf trap. It comfortably accommodates four passengers, and by a little effort three can find room on each of the broad seats. The speeds are three, six and 12 miles per hour.

Automobiles for private and public livery service are the straight front brougham, the extension front brougham and the demi-coach, railway cab and public hansom. The broughams are built with straight and extension fronts. The former style accommodates two passengers, and the latter four, in addition to the driver and attendant on front seat. They are designed pre-eminently for city work, and are familiar types in New York, Boston, Philadelphia, Washington and Chicago. These vehicles are provided with silk curtains, double plate glass windows, incandescent lamps, signal bells and card cases. Their running radius is 35 miles on one charge of the battery at a speed of 12 miles per hour. The demi-coach, railway cab and public hansom, all of the Riker style, are designed for either public or private service. They have capacities of 35 miles on one charge of battery and can be operated at the rate of eight and 12 miles per hour.

Of more ample seating capacity and intended for various forms of transportation are the six passenger omnibus, the wagonette, the theater bus, the brake and the Wilkesbarre bus. The Columbia six passenger bus was designed especially as an opera bus, for which service it has been in active use for the last two seasons. It was the subject of much favorable comment at the Paris Exposition in 1901. It can be operated 35 miles on one charge at a speed of 10 miles per hour.



# FISK Tires

## THE MOST SUCCESSFUL BICYCLE DEALERS

Are those who make it a point to investigate the merits of everything they sell before offering it to the public. This discrimination for their customers' welfare results in increased business and pleased clients.

What kind of tires are you selling your customers? The kind that you can buy to the best advantage, or the kind that represent the highest quality of material and workmanship? The latter method will save you many a day's worry and headache.

Riders are going to buy only where they have received satisfaction.

Better sell FISK TIRES that give satisfaction and make friends for the dealer instead of enemies. They are just as good tires as can be made and you will have more money on the right side of your bank account at the end of the year if you sell them.

**Fisk Rubber Co., Chicopee Falls, Mass.**

BRANCHES: Springfield; New York; Syracuse; Buffalo;  
 Detroit; Chicago, 64 State St.  
 PHIL. B. BEEBEY COMPANY, San Francisco, Cal.  
 A. F. SHAPLEIGH MFG. CO., St. Louis, Mo.  
 Distributors for Central and Southern States.

# High Grade Well Made

## ELECTRIC VEHICLE CO. AT PAN-AMERICAN.

A similar type of vehicle is made to accommodate eight passengers within, and a number of these are used as transportation conveyances. Leading hotels in Washington and Atlantic City have operated these latter vehicles since the spring of 1900.

The Columbia wagonette is frequently seen along the popular drives in the large cities. For sight seeing, pleasure excursions and public service they are giving excellent satisfaction. For transportation purposes, with the interior inclosed, these vehicles have been in successful service in different cities, notably Boston and Chicago. There are accommodations within for 10 passengers and room on the front seat for another besides the driver and attendant. The running radius on one charge is 35 miles at a speed of 10 miles per hour. One of these wagonettes has been in the service of the Hartford, Conn., police department for the last two months, pending the delivery of the new electric patrol wagon which the Electric Vehicle Co. is building for the department.

The Riker theater bus has a seating capacity of 12 beside the operator, six passengers inside, four on the roof and two on the seat with the operator. It is finished in the most attractive manner with plate glass mirror, beveled plate glass windows, ceiling lamps, foot warmer, and signal bells. Designed originally for theater and opera service, it has also been adopted for other transportation service. Its running radius is 35 miles on one charge at a speed of 10 miles per hour. The Riker brake, like the Columbia wagonette, is designed especially for coaching parties and excursions. Twelve persons can be accommodated with comfort on the four broad seats, and with a little crowding the seating capacity can be increased to 16. This vehicle is upholstered in pig skin, and provided with a horn and case, a basket and a ladder. Its capacity is 35 miles on one charge and a speed of 12 miles per hour can be obtained.

The Wilkesbarre bus is named from its successful operations in Wilkesbarre, Pa., where it has been running for a year. Two vehicles of the same type are familiar sights on Fifth avenue in New York. For the latter service the Electric Vehicle Co. is building six more of these busses. There is ample room for 14 passengers inside, the roof seat accommodates five, and there is room on the front seat for two besides the operator. The vehicle hangs particularly low, making it easy of access, and the easy spring suspension makes riding most comfortable. It can be operated 35 miles on one charge at the rate of six miles per hour.

There will be three vehicles of the gasoline type on exhibition, two runabouts, one of the Columbia and the other of the Riker pattern, and the Columbia tricycle carrier. The Columbia gasoline runabout was offered as a standard make only after the severest endurance test a vehicle of this type was ever subjected to in this country. During a snow storm last January this vehicle made 10 successive round trips between Hartford, Conn., and Springfield, Mass., covering 538 miles with the engine in continuous operation for 41 hours. During the test the thermometer frequently fell below zero and for 12 hours the wind blew at the rate of 40 miles per hour. This runabout can be operated 150 miles on one supply of gasoline, and 200 miles on one water supply. From 18 to 25 miles per hour can be attained and a 25 per cent grade can be taken with ease. It won the hill climbing contest in the recent Long Island endurance test. It is provided with a rumble in the rear for an attendant or a ton-

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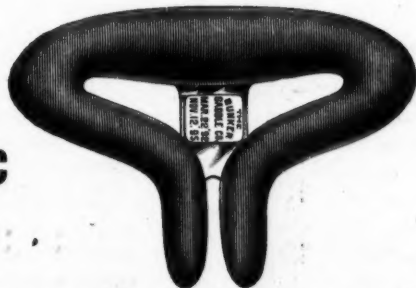
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The CUSHION FRAME is positively the greatest bicycle invention since the advent of the pneumatic tire. It practically increases the resiliency of the tire four fold without in the least detracting from the speed or power of the wheel (as compared with the so-called rigid frame). The most enthusiastic converts to the Cushion Frame are the old-time, speedy "get there" riders who at first "scoffed" the idea of COMFORT being combined with "speed and power" in a bicycle :: :: :: ::

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Owners of the Cushion Frame Patents.

neau seat accommodating two passengers vis-a-vis in addition to the two on the broad seat.

The Riker gasoline runabout is the result of five years' experiments and is equipped with an engine capable of developing 9 horsepower. One supply of gasoline will carry the vehicle 200 miles over favorable conditions of roadway at a speed of 20 miles per hour. One supply of water will last the same distance. Three speeds ahead and one reverse are given by means of pedals easily operated.

One of the earliest types of Columbia automobiles is the gasoline tricycle carrier which has been found to fill an especial demand for a delivery vehicle capable of carrying moderate weights over considerable distances without the necessity of recharging. The carrying capacity is 500 pounds of merchandise beside the driver and it can be run at a speed of over 12 miles per hour. One gasoline supply is sufficient for 75 miles and one supply of water lasts 20 miles. As a carrier it can transport heavy articles such as barrels, crates, large boxes, etc., or it can be fitted with sides and a top for the delivery of packages. This vehicle can also be equipped with seats running lengthwise, transforming it into a species of jaunting car. As such it accommodates four passengers beside the driver.

Both the Columbia and Riker delivery wagons, of which there will be three on exhibition, are in operation in all of the large cities of this country. They combine strength, durability, lightness, heavy carrying capacity, adequate mileage capacity and speed. They are used by dry-goods houses and other concerns employing a number of vehicles for delivery purposes where the service requires the greatest dispatch, care and reliability.

In a number of instances large concerns, quick to realize the economical, reliable and speedy features of an automobile service, have superseded the uncertain and costly horse system with the motor vehicle service. While these vehicles are finished in an attractive manner, they are built primarily for hard usage and to work under the most trying conditions of delivery service. The carrying capacities range from 500 to 2,000 pounds and the running capacity from 20 to 40 miles, according to the type of vehicle and the kind of batteries. Speeds from eight to 12 miles per hour are given. Among the more prominent firms and houses who are using these vehicles may be mentioned John Wanamaker, B. Altman & Co., the Gorham Mfg. Co., Thorley, Remington Typewriter Co., Moët & Chandon, Otto Huber Brewery, Carl H. Schultz, Hacket, Carhart & Co., W. L.



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**SUPERIOR QUALITY THAN  
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## ADVERTISEMENTS.

Douglas Shoe Co., Metropolitan Railroad Co., the R. H. White Co., the United Electric Co., and American Pastry and Mfg. Co. Special bodies can be built for all the special requirements of delivery service.

In the production of a two-ton truck the range of usefulness of which the electric automobile is capable is well shown. This truck has been in the active service of the company at its Elizabethport factory for several years filling every requirement for carrying heavy loads under all conditions of weather and roadway. It has a capacity of 25 miles on one charge and speeds are given at the rate of seven and 10 miles per hour. A truck of double carrying capacity is used by Moet & Chandon for transportation of champagne cases. This latter vehicle was one of the principal attractions at the automobile show in New York. It can run 25 miles on one charge at rates of five and seven miles per hour. There is no severer test of the batteries than the tremendous strain to which these trucks are subjected.

Among those who will be in charge of the company's exhibit during the exposition will be J. M. Hill, J. H. K. Davis and W. G. Bee.



### THE WOMAN EDITOR

An interesting bit of information not generally known is that the management and editorial work of the *Chaufeur*, one of the Paris automobile papers, is now carried on by Mme. Lockert, the widow of Louis Lockert, who founded the paper and managed it until his death. The work of Mme. Lockert is thus analogous to that of the widow Lavassor, who since her husband's death has been engaged actively in automobile development, although not in connection with the established firm of Panhard & Levassor.



### WHERE MONEY IS WASTED

To test the possibilities of the automobile in the postal service of San Jose, Lew Black took a carrier over his usual route and convinced the authorities that they cannot afford to be without a vehicle much longer than the authorities at Washington make it necessary. The time consumed by the carrier with a horse is usually 8 hours. With the automobile 33 miles, including 120 stops, were made in 2 hours and 35 minutes.



The Chicago police department has prepared, and the council will undoubtedly pass, an ordinance requiring oper-

ators to display their license badges so that they may be seen at all times. The police say that a number of accidents have occurred in the city, and in nearly every case it has been found that the operator was without a license.

Last week the operator of an automobile containing H. R. Ickelheimer, a New York banker, was fined \$10 for exceeding the speed limit and the magistrate held that the occupant of the vehicle could be arrested and fined as well as the operator.



NEWARK, (N. J.) CYCLE SPECIALTY CO., Makers

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Advertisements under this head 5 cents per word first insertion; 3 cents per word each insertion thereafter. Cash with order. Express orders, postoffice orders or stamps received.

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**FOR SALE**—The Automobile Storage and Repair Co., 57 West 68th St., New York, have new and second-hand steam, gasoline, and electric carriages constantly on hand and have always some special bargains.

**FOR SALE**—Keene wheel lacing and truing chuck cost \$12.50, first draft for \$6.25 gets it. SHIRLEY CARRELL, Hartford City, Ind.

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**WANTED**—Mechanics and others to buy castings and working drawings of a light automobile; also of light gasoline engines. Build for your own use or sell at a profit. Send for new catalogue. A. C. DYKE, Linmar Bldg., St. Louis, Mo.

**WANTED**—First-class all around bicycle repairman. MAX. SCHULZ, Ottawa, Ill.



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**50 MILES FOR 10 CENTS.**

This is the maximum cost of  
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With it you can make an average of 35  
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It is built for wear and  
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is always under perfect control; as simple in operating as an ordinary wheel. Full information sent free. Manufactured only by  
**WISCONSIN WHEEL WORKS, DEPT. M, RACINE, WISCONSIN.**

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THE HAMPDEN MFG. CO., Springfield, Mass.  
HALL MOTOR CARRIAGE CO., Dover, N. J.

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**Motor Oil.** Our Special Motor Oil will give the best results in DeDion and other motors. Is a special blended mineral oil, free from all animal and vegetable compounds, prepared and sold only by our company. Quarts, 50 cts. One-half Gallon, 75 cts. Gallon, \$1.25.

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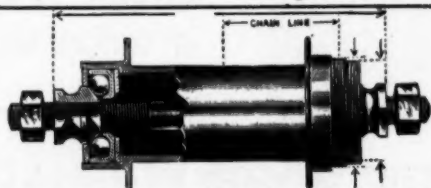
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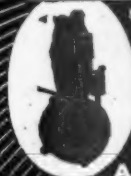
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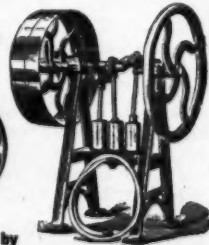
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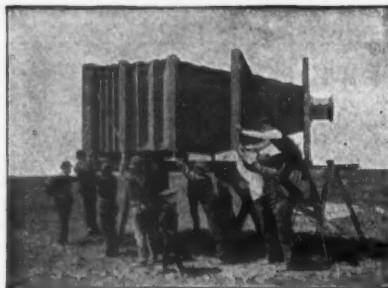
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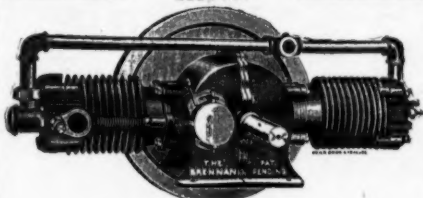
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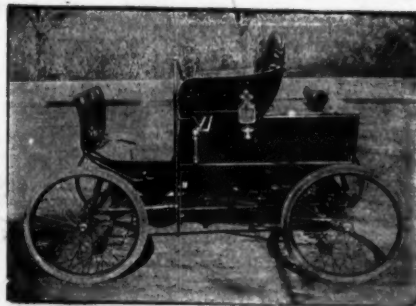
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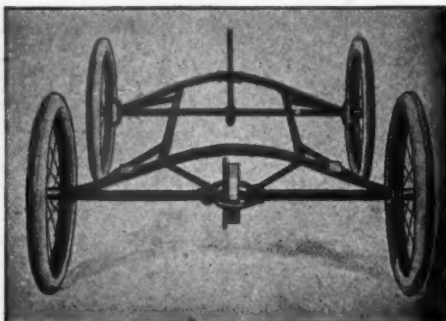
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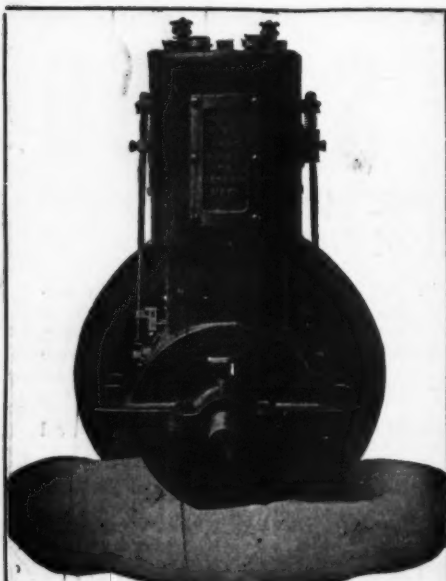
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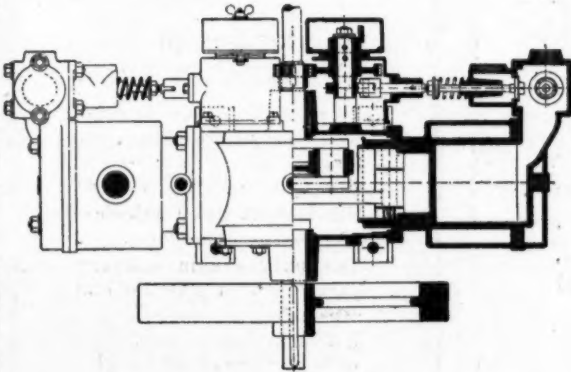


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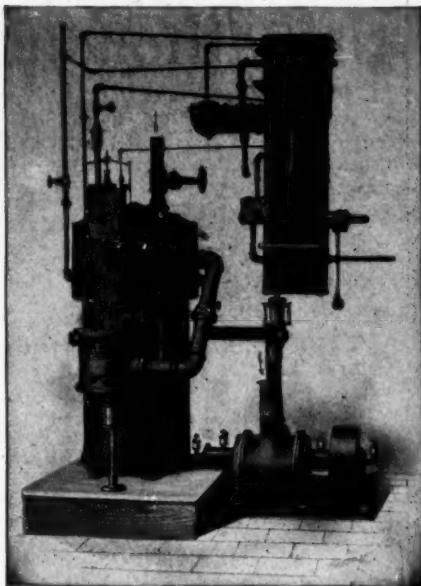
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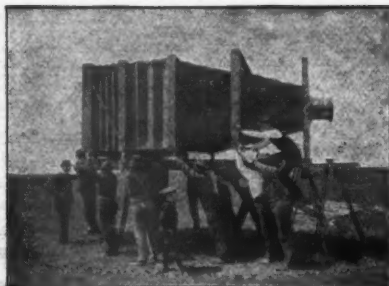
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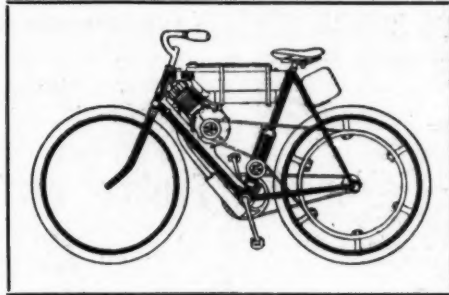
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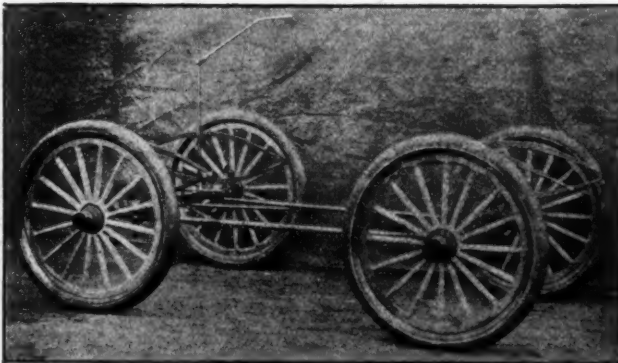
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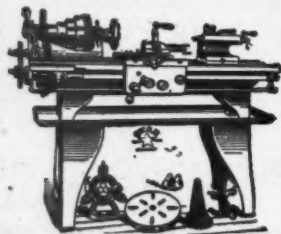
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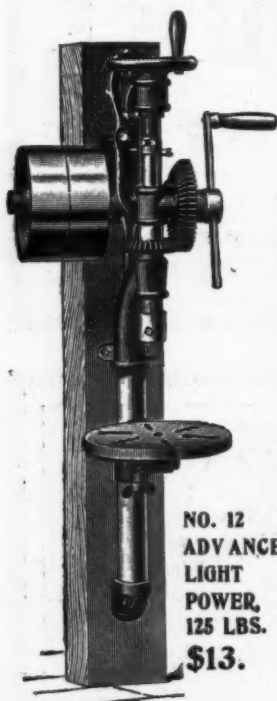
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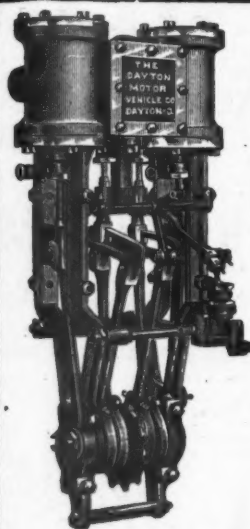
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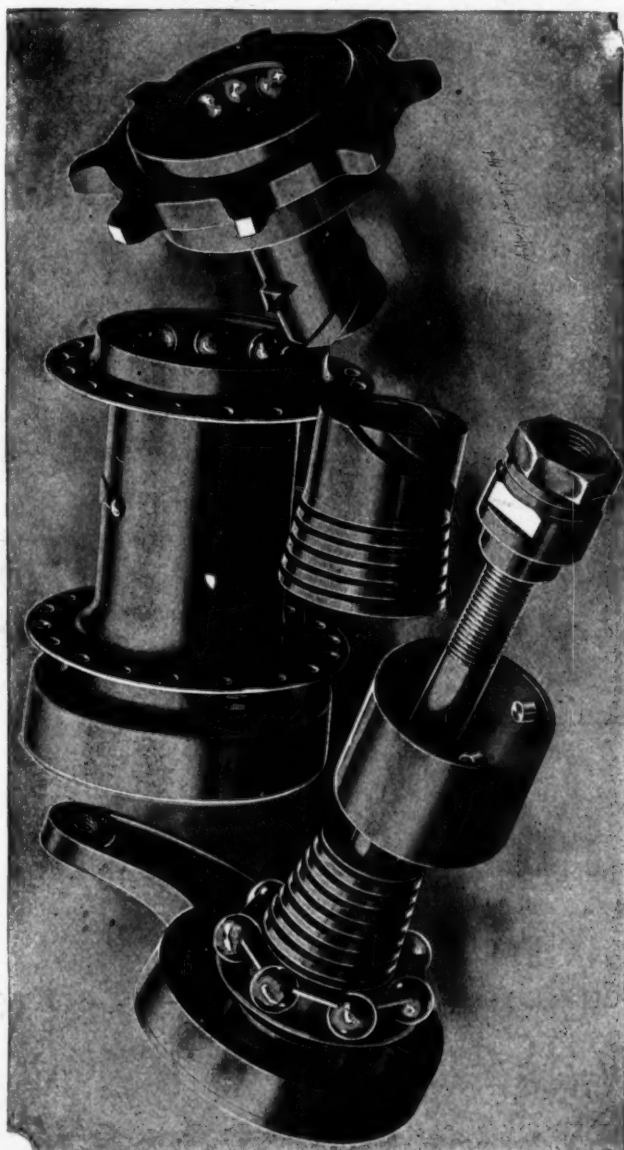
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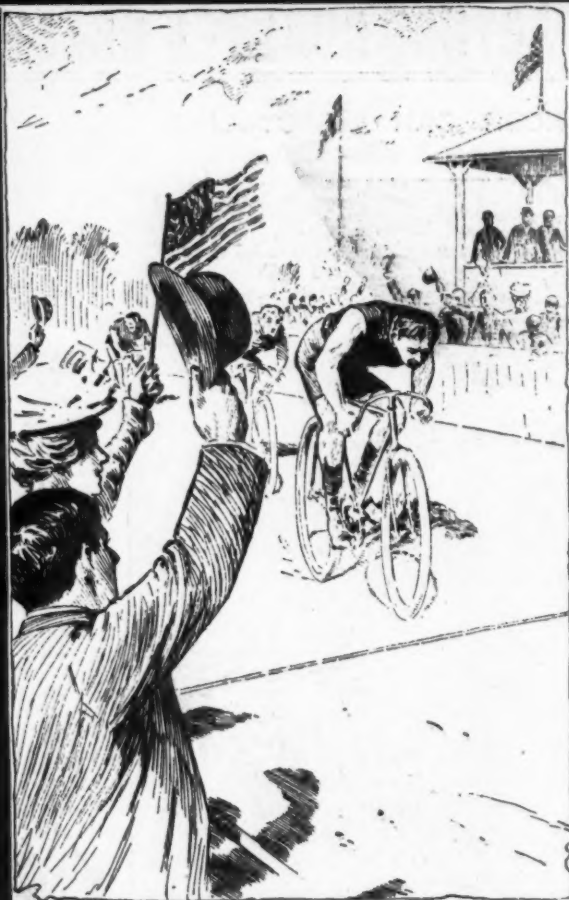
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